X/11C

Indian Hemp Drugs Commission.

VOL. VII.

EVIDENCE OF WITNESSES

FROM

BOMBAY, SIND, BERAR, AJMERE, COORG, BALUCHISTAN, AND BURMA

TAKEN BEFORE THE

INDIAN HEMP DRUGS COMMISSION.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

Bx-j-36

CALCUTTA:
OFFICE OF THE SUPERINTENDENT OF GOVERNMENT PRINTING, INDIA.
1894.

Price Two Rupees Eight Annas.

Digitized with financial assistance from

Shri Brihad Bhartiya Samaj

on 31 October, 2019

QUESTIONS FRAMED BY THE COMMISSION.

Evidence before the Indian Hemp Drugs Commission, 1893-94.

CHAPTER I.

Introductory.

1. What opportunities have you had of obtaining information regarding the matters connected with hemp drugs in regard to which your answers are framed?

2. In the most recent work on ganja (Dr. Prain's report of 21st June 1893) it is stated that "in India three narcotic articles are obtained naturally from hemp. These are, siddhi or bhang, charas, and ganja." They are thus defined by Dr. Prain: "Siddhi, bhang, subji or patti are different names applied to the dry leaves of the hemp plant, whether male or female and whether cultivated or uncultivated.

"Charas is the name applied to the resinous matter which forms the active principle of the plant when collected separately.

"Ganja consists of the dried flowering tops of cultivated female hemp plants which have become coated with resin in consequence of having been unable to set seeds freely. The formation of seeds is prevented by the destruction of all the male plants.

"Three varieties of ganja are sold. Ganja is usually manufactured by being trodden under foot, so that the agglutinated flower-tops assume a flattened shape. This is 'Flat ganja.' The other sort of ganja is not trodden, but rolled under foot, so that the agglutinated flower-tops are less closely adherent, and assume a rounded shape. This is 'Round ganja.' The flower-tops of ganja detached from the twigs, whether of flat or of round ganja, and whether the detachment has been accidental or deliberate, form 'chur' or 'Broken ganja.'"

May these definitions be accepted for your province? By what name is each of these products locally known?

CHAPTER II.

Cultivation or Growth of Hemp.

(*Cannabis sativa.*)

3. In what districts of which you have knowledge does the hemp plant grow spontaneously? Mention any in which it is abundant.

4. By what different names is it known? Do these refer to exactly the same plant?

5. What special conditions of climate, soil, rainfall, elevation above sea level, etc., are necessary to the growth of the wild hemp?

6. Is the growth of the wild hemp ordinarily dense, or scattered?

7. Is there any cultivation of the hemp plant in your province—

(*a*) for production of ganja;

(*b*) for production of charas;

(*c*) for use as bhang;

(*d*) for its fibre or seeds;

If so, where and to what extent?

8. If there has recently been any considerable increase or decrease in the area under such cultivation, state the reason.

9. Give any particulars you are able regarding the methods of such cultivation.

10. Do the persons who cultivate hemp for its narcotic properties form a special class? Or are they of the same classes as other agricultural cultivators?

11. Are the plants cultivated for the production of ganja ever raised from the seed of the wild hemp?

12. Have you any reason to suppose that the (so-called) wild hemp is anywhere specially cultivated for the production of ganja? If so, give the names of the districts or tracts in which this occurs, and your opinion as to the extent to which the practice exists. Is the male plant extirpated in such cases?

13. (*a*) Is the cultivation of hemp plant for ganja restricted in your province? If so, to what districts? Why were they selected? If not restricted, is the cultivation common to all districts?

(*b*) Are there any special conditions of climate, soil, rainfall, elevation above sea-level, etc., which are necessary for the cultivation of hemp for producing ganja?

(*c*) Is there any part of your province where its cultivation would be impossible?

CHAPTER III.

Preparation or Manufacture.

14. Are any of the following products of the hemp plant prepared in your province:—

(*a*) ganja,

(*b*) charas,

(*c*) bhang?

If so, where and to what extent?

15. Give any particulars you are able regarding the methods of such preparation, distinguishing specially the methods of preparation from (*a*) the cultivated, and (*b*) the wild plant respectively, and distinguishing also preparations for (A) smoking, (B) eating, and (C) drinking.

16. (*a*) Is bhang prepared generally by the people in their houses?

(*b*) Can it be prepared from the hemp plant wherever grown?

(*c*) Can ganja or charas also be prepared from the wild plant wherever grown?

17. By what classes of the people are the preparations of the hemp drug respectively made?

18. Does any of these three drugs (ganja, charas, and bhang) deteriorate by keeping? Does

it quite lose its effect in time? How long does it keep good with ordinary care? What are the causes of deterioration? What special measures can be taken to prevent deterioration?

CHAPTER IV.

TRADE.

(Statistics to be obtained from Government offices.)

CHAPTER V.

CONSUMPTION OR USE.

NOTE.—It is very important, in answering the questions framed under this chapter, to distinguish carefully between ganja, charas, and bhang. The answer should deal only with those forms of the drug known to the witness, and should clearly specify in each case the form or forms to which his statements apply.

19. Are ganja and charas used only for smoking? If not, name any other uses to which either is put, with particulars as to such uses, and the places where they are prevalent.

20. What classes and what proportion of the people smoke ganja and charas respectively? and in what localities?

21. What kind of ganja (flat, round or "chur") is preferred for smoking? If different kinds are used in different localities, give particulars.

22. What charas, native or foreign, is chiefly used? If foreign, whence is it imported?

23. Is bhang ever used for smoking? If so, in what localities, by what classes of the people, and to what extent?

24. What classes and what proportions of the people respectively (*a*) eat or (*b*) drink bhang, and in what localities?

25. Is the use of ganja, charas, and bhang, or of any of these drugs, on the increase or on the decrease?

Give any reasons you are able.

26. State for each of these drugs what proportion of the consumers are—

(*a*) Habitual moderate consumers,

(*b*) Habitual excessive consumers,

(*c*) Occasional moderate consumers,

(*d*) Occasional excessive consumers.

27. What classes of the people are each of these mainly taken from, and what in each case are the habits of life or circumstances which mainly lead to the practice?

28. What is the average allowance and cost of each of these drugs per diem to—

(*a*) Habitual moderate consumers,

(*b*) Habitual excessive consumers?

29. What ingredients are (*a*) ordinarily or (*b*) exceptionally mixed with any of these drugs by the different classes of consumers? Is dhatura so used? What is the object of these admixtures?

Do you know of any preparation (such as "bhang massala") which is sold for the purpose of being mixed with any of these drugs? Describe its ingredients.

30. (*a*) To what extent is the consumption of each of these three drugs practised in solitude or in company?

(*b*) Is it mainly confined to the male sex or to any time of life?

(*c*) Is it usual for children to consume any of these drugs?

31. (*a*) Is the habit of consuming any of these drugs easily formed?

(*b*) Is it difficult to break off?

(*c*) Is there a tendency in the case of any of these drugs for the moderate habit to develop into the excessive?

32. (*a*) Mention any customs, social or religious, in regard to the consumption of any of these drugs. Give an account of every such custom.

(*b*) Is the use of the drug in connection with such custom regarded as essential?

(*c*) Is it generally temperate or excessive?

(*d*) Is it likely to lead to the formation of the habit, or otherwise injurious?

33. (*a*) How is the consumption of each of these drugs generally regarded?

(*b*) Can it be said that there is any public opinion (social or religious) in regard to the practice? If so, what? If you think that the use of any form of the narcotic is generally in disrepute, to what do you attribute that sentiment?

(*c*) Is there any custom of worshipping the hemp plant on certain occasions by certain sects of the people?

34. Would it be a serious privation to any class of consumers to forego the consumption of the drug they use? Give your reasons in each case. Give some idea of the probable numbers of each class.

35. (*a*) Would it be feasible to prohibit the use of any or all of these drugs?

(*b*) Would the drug be consumed illicitly?

(*c*) How could the prohibition be enforced?

(*d*) Would the prohibition occasion serious discontent among the consumers?

(*e*) Would such discontent amount to a political danger?

(*f*) Would the prohibition be followed by recourse to (*a*) alcoholic stimulants or (*b*) other drugs?

36. Is there any reason for thinking that alcohol is now being to a certain extent substituted for any of these drugs? If so, to what causes do you attribute this change, and what proof is there of its reality?

CHAPTER VI.

EFFECTS.

NOTE.—It is very important, in answering the questions framed under this chapter, to distinguish carefully between ganja, charas, and bhang. The answer should deal only with the form of hemp known to witness, and should clearly specify in each case the form or forms to which his statements apply, and the particular experiences on which they are based. Question 56 deals with the effect of admixtures. This should also be referred to in answering any question where any such admixture generally affects the case. But the answer ought, in the first instance, to deal with the effect of the hemp drug apart from any such admixture.

37. Are the effects of charas smoking different in any particular from those resulting from ganja smoking? If so, state the difference.

38. Have the three different preparations of ganja (round and flat ganja and "chur") any different effects in kind or degree on consumers?

39. Is the smoking of any preparation of the hemp plant in any way a less injurious form of consumption than drinking or eating the same or any other preparation? Give reasons for your answer.

40. (*a*) Is the use of any of these drugs prescribed on account of its medicinal qualities by any school of Native Doctors?

(*b*) Are any of them used in the treatment of cattle disease?

41. May the moderate use of charas, ganja, or bhang be beneficial in its effects—

(*a*) as a food accessory or digestive;

(*b*) to give staying-power under severe exertion or exposure, or to alleviate fatigue;

(*c*) as a febrifuge or preventive of disease in malarious and unhealthy tracts;

(*d*) in any other way.

What classes (if any) use the drug for any of the above purposes, and in what proportion of such classes? Is it the moderate habitual use or moderate occasional use of the drug which you refer to?

42. If not beneficial, do you consider the moderate use of any of these drugs to be harmless? Give reasons for your answer.

43. Are moderate consumers inoffensive to their neighbours?

44. (*a*) What is the immediate effect of the moderate use of any of these drugs on the habitual consumer?

(*b*) Is it refreshing?

(*c*) Does it produce intoxication?

(*d*) Does it allay hunger?

(*e*) Does it create appetite?

(*f*) How long does the effect last?

(*g*) Are there any after-effects?

(*h*) Does the want of subsequent gratification produce any longing or uneasiness?

45. (*a*) Does the habitual moderate use of any of these drugs produce any noxious effects—physical, mental, or moral?

(*b*) Does it impair the constitution in any way?

(*c*) Does it injure the digestion or cause loss of appetite?

(*d*) Does it cause dysentery, bronchitis, or asthma?

(*e*) Does it impair the moral sense or induce laziness or habits of immorality or debauchery?

(*f*) Does it deaden the intellect or produce insanity?

If it produces insanity, then of what type, and is it temporary or permanent?

If temporary, may the symptoms be re-induced by use of the drug after liberation from restraint?

Are there any typical symptoms?

Do insanes, who have no recorded ganja history, confess to the use of the drug?

(*g*) In such cases of the alleged connection between insanity and the use of hemp as are known to you, are you of opinion that the use of the drug by persons suffering from mental anxiety or brain disease to obtain relief has been sufficiently considered in explaining that connection?

And do you think there is any evidence to indicate that insanity may often tend to indulgence in the use of hemp drugs by a person who is deficient in self-control through weakened intellect?

Give an account under each of these points of any cases with which you are acquainted.

46. Discuss the same question in regard to the habitual excessive use of any of these drugs.

47. Does the habitual moderate use of any of these drugs appear to be a hereditary habit or to affect in any way the children of the moderate consumer?

48. Discuss the same question in regard to the habitual excessive use of any of these drugs.

49. (*a*) Is the moderate use of any of these drugs practised as an aphrodisiac?

(*b*) Is it so used by prostitutes?

(*c*) Is the use for this purpose more injurious than its use as an ordinary narcotic, and, if so, how?

(*d*) Does the use of hemp tend to produce impotence?

50. Discuss the same question in regard to the excessive use of any of these drugs.

51. (*a*) Are any large proportion of bad characters habitual moderate consumers of any of these drugs?

(*b*) What connection, if any, has the moderate use with crime in general or with crime of any special character?

52. Discuss the same question in regard to the excessive use of any of these drugs.

53. Does excessive indulgence in any of these drugs incite to unpremeditated crime, violent or otherwise? Do you know of any case in which it has led to temporary homicidal frenzy?

54. Are these drugs used by criminals to fortify themselves to commit a premeditated act of violence or other crime?

55. (*a*) Do criminals, in order to further their designs, induce their victims to partake of any of these drugs and so stupefy themselves?

(*b*) Can complete stupefaction be thus induced by this drug without admixture.

56. How are the effects of hemp, used (*a*) in moderation and (*b*) in excess, modified by the admixture of other substances? Note specially any information you possess regarding the admixture of dhatura for personal consumption or for administration to others.

57. Ganja and charas are said sometimes to be eaten or drunk. Where this is the case, give your experience as to the effects, dealing separately with any of the heads in the preceding questions which seem to require notice.

CHAPTER VII.

Administration—Taxation: Control.

58. If you are acquainted with the present system of Excise Administration in your province in respect of hemp drugs, do you consider it to be working well, or do you consider it to be capable of improvement?

59. If capable of improvement, indicate in what direction or directions, giving reasons for your answer.

60. If ganja is produced in your province, do you think that the cultivation of the ganja-bearing plant and the process of its preparation are sufficiently controlled, or that the system requires modification in any respect? If so, in what respects and why?

61. If charas is produced in your province, do you think the cultivation of the hemp plant for its production and the process of preparation are sufficiently controlled, or that the system requires modification in any respect. If so, in what respects and why?

62. Do you think that the cultivation of the hemp plant for the production of bhang should be in any way controlled? Would this be feasible? If so, indicate the method by which such control could be exercised.

63. Have you any objection to the present system of $\frac{a \text{ wholesale}}{b \text{ retail}}$ vend of $\frac{1 \text{ ganja}}{2 \text{ charas}}{3 \text{ bhang}}$ or preparations of them? If you have any objections, state them at length, and indicate the improvements you suggest.

64. Have you any objections to the existing regulations governing the export and import of these drugs or of their preparations from and into your province, or their transport within the province? Give reasons for your answer.

65. In your opinion is the taxation of $\frac{1 \text{ ganja}}{2 \text{ charas}}{3 \text{ bhang}}$ reasonable with reference (*a*) to each other, (*b*) to alcoholic or other intoxicants? Give reasons for any alterations in the amount of taxation of any of these articles which you may suggest.

66. In your opinion is it necessary that there should be different rates of taxation for different kinds of ganja (such as the "flat," "round," and "broken" ganja produced in Bengal), or for ganja grown in different localities? If so, on what principle?

67. Having regard to the ultimate incidence of the tax on the consumer, have you any objections to the present method of taxing $\frac{1 \text{ ganja}}{2 \text{ charas}}{3 \text{ bhang}}$?

68. Are there in your province houses or shops licensed for the sale of these drugs or their preparations where they may be consumed on the premises? What is your view in respect to such houses or shops?

69. Are the wishes of the people consulted or considered in any way before a shop is opened in any locality? What measures are taken for this purpose? Ought local public opinion to be thus considered?

70. Are there any facts regarding the importation or smuggling of hemp drugs from Native States into your province to which you wish to draw attention? Is duty really paid in respect to the ganja and other hemp drugs used? Or is there any general use of untaxed drugs, and by whom?

INDEX

TO

BOMBAY, SIND, BERAR, AJMERE-MERWARA, COORG, BALUCHISTAN, AND BURMA WITNESSES.

No.	Name.	Designation.	Page.
	BOMBAY.		
1	Honourable T. D. Mackenzie†	Commissioner of Customs, Salt, Abkari and Opium	1
2	G. B. Reid†	Commissioner	2
3	G. W. Vidal†	Chief Secretary to Government	3
4	W. Porteous	Collector	4
5	E. J. Ebden*	Ditto	*ib.*
6	W. F. Sinclair*	Ditto	9
7	F. L. Charles	Ditto	11
8	F. S. P. Lely*	Ditto	13
9	J. M. Campbell, C.I.E.†	Collector of Land Revenue and Customs and Opium	16
10	J. Monteath	Collector	17
11	H. Woodward	Ditto	19
12	A. Cumine	Acting Collector	21
13	W. W. Drew	Ditto	*ib.*
14	R. A. Lamb	Ditto	22
15	M. C. Gibb	Assistant Magistrate	24
16	H. W. Bagnell	Ditto	*ib.*
17	C. G. Dodgson	Ditto	25
18	Hon. G. D. Panse	Ditto	27
19	A. H. Plunkett	City Magistrate	28
20	P. H. Dastur, Khan Bahadur	Presidency Magistrate	34
21	R. B. Lallubhai Gordhandas*	Deputy Collector	*ib.*
22	R. B. Narayan Ganesh Deshpande	Ditto	36
23	R. B. K. M. Thatte	Ditto	38
24	R. B. Bhimbai Kirparam*	Ditto	39
25	R. B. Venkatesh Bapuji Vadekar	Ditto	42
26	K. B. Dadabhai Dinshaji	Ditto	45
27	R. B. Bhaskar Ramchandra Heblikar	Ditto	48
28	R. B. Sitaram Damodar	Ditto	51
29	K. B. Ratanji Edalji Kanga *	Ditto	54
30	R. B. Bapuji Mahipat Kharkar	Ditto	57
31	R. B. Rango Ramchandra Bhardi	Ditto, Assistant to Commissioner, Central Division	60

* Examined orally.

† Examined orally only.

No.	Name.	Designation.	Page.
	BOMBAY—*contd.*		
32	R. B. Rudragauda Chanvirgauda Artal *	Deputy Collector	64
33	R. B. Ramchandra Rajaram Mulé *	Ditto Administrator of Jath	67
34	R. B. V. H. Shikre	Deputy Collector	72
35	J. F. Fernandez	Retired Deputy Collector	73
36	R. B. Narayan Bhikaji Joglekar *	Pensioned Deputy Collector and Karbhari of the Aundh State	75
37	H. Ingle	Retired Deputy Collector	79
38	W. Almon *	Assistant Collector of Abkari	80
39	R. S. Ganesh Pandurang Thakur *	Mamlatdar	84
40	R. S. Narayan Vaman Deobhankar	Ditto	90
41	R. S. Shesho Krisna Mudkavi	Ditto	91
42	R. S. Vithal Raghonath Dange	Ditto	94
43	R. S. L. M. Deshpande	Ditto	*ib.*
44	R. S. Krishnaji Balal Deval *	Ditto	96
45	R. S. Ramchandra Narayan Joglekar	Ditto	98
46	Balkrishna Narayan Vaidya	State Karbhari	*ib.*
47	Dadabhai Barjorjee Guzdar	Abkari Inspector	100
48	K. S. Nasarvanji Edalji Setna	Ditto	105
49	Yashvantrao Nilkanth	Superintendent, Office of Survey Commissioner and Director of Land Records and Agriculture	108
50	G. P. Millet	Divisional Forest Officer	113
51	Lieutenant-Colonel J. Humfrey †	Inspector General of Police	114
52	H. Scannell †	Superintendent, Great Indian Peninsula Railway Police	115
53	R. W. E. H. Vincent, C.I.E. †	Officiating Commissioner of Police	116
54	H. Kennedy	District Superintendent, Police	117
55	J. E. Down	Ditto	119
56	Major T. R. M. Macpherson	Ditto	120
57	F. T. V. Austin	Ditto	121
58	Dhanjisha Dadabhoy	Ditto	123
59	T. G. Foard	Superintendent of Police	124
60	K. B. Nanabhai Kavasji	Police Inspector	129
61	J. A. Guider	Ditto	132
62	R. S. Pranshankar *	Ditto	*ib.*
63	Surgeon-Major-General P. S. Turnbull †	Surgeon-General with the Government of Bombay	135
64	Brigade-Surgeon-Lieutenant-Colonel G. A. Maconachie	Principal, Grant Medical College	*ib.*
65	Brigade-Surgeon-Lieutenant-Colonel J. Arnott	Physician in charge, St. George's Hospital	136
66	Surgeon-Major D. N. Parakh *	Surgeon to the Gocul Dass Tejpal Hospital	*ib.*
67	Surgeon-Major H. W. B. Boyd *	Civil Surgeon	137

* Examined orally.

† Examined orally only.

No.	Name.	Designation.	Page.
	BOMBAY—*contd.*		
68	Surgeon-Lieutenant-Colonel M. L. Bartholomeusz ‡	Civil Surgeon	140
69	Surgeon-Lieutenant-Colonel W. McConaghy *	Ditto	141
70	Surgeon-Major H. McCalman †	Ditto	144
71	Surgeon-Major D. C. Davidson	Ditto	145
72	Surgeon-Captain W. E. Jennings †	Ditto	146
73	Surgeon-Major K. R. Kirtikar *	Ditto	*ib.*
74	Surgeon-Colonel D. E. Hughes *	Principal Medical Officer, Bombay, Deesa and Aden Districts	151
75	Surgeon-Captain W. H. Burke †	Assistant Civil Surgeon	152
76	R. S. Bhikaji Amrit Chobhe	Assistant Surgeon	153
77	K. B. Dossabhai Pestonji *	Ditto Honorary Assistant Surgeon to His Excellency the Viceroy	154
78	Anna Moreshwar Kunte	Assistant Surgeon	156
79	M. F. Pereira *	Ditto	*ib.*
80	R. B. Thakurdas Kirkabhai	Ditto	157
81	Abdul Ghani Hakim	Ditto	160
82	B. H. Nanavati	Ditto, Teacher of Surgery and Midwifery	161
83	Bhau Succaram	Civil Hospital Assistant	162
84	Rajana Lokaji	Ditto	163
85	Jamitram Jayashankar	Ditto	164
86	Sadashiv Waman *	Ditto	165
87	Phirozsha Dinsha *	Ditto	168
88	Shaik Sarfraz Hakim	Ditto	170
89	Parsan Singh *	Ditto	171
90	R. B. Vishram Ramji Ghollay	Medical practitioner	172
91	Ganesh Krishna Garde *	Ditto	173
92	J. Gerson Da Cunha	Ditto	179
93	Edalji Nasserwanji	Ditto	180
94	J. C. Lisboa	Ditto	*ib.*
95	Bhalchandra Krishna Bhatavadekar	Ditto	181
96	Ismail Jan Mahomed	Ditto	183
97	Ardesir Dadabhoy Mody	Ditto, Member, Municipal Corporation	184
98	Uttamram Jeewanram	Native Doctor	*ib.*
99	Keshowram Haridat	Ditto	186
100	Parbhuram Jeewanram *	Ditto	187
101	Vithaldass Pranjiwandass	Landlord and Trader	190
102	Ramchandra Krishna Kothavale *	Inamdar	192
103	Rev. D. O. Fox	Methodist Episcopal Church	196
104	Desaibhai Kalidas	Government Pleader	197
105	R. B. Govindrao Ramchandra Garud	Pleader	201

* Examined orally. † Examined orally only.
‡ Summoned to attend at a meeting of the Commission for oral examination, but was unable to appear.

No.	Name.	Designation.	Page.
	BOMBAY—*concld.*		
106	R. B. Huchrao Achut Harihar	Pleader	203
107	Naro Dhakadeo	Ditto	205
108	Daji Abaji Khare	Honorary Secretary, Bombay Branch, East India Association	207
109	Sewak Lall Karsondas	Secretary, Arya Samaj	208
110	R. B. Vishvanath Keshava Joglekar *	Sowkar	*ib.*
111	Dinanath Shivshanker	Chemist and Druggist	214
112	Nawalchand Heerachand	Jeweller	215
113	Jamsedjee Nasserwanjee Ginwalla §	Abkari and Opium Contractor	216
114	Kisan Dalichand	Ganja-vendor	219
115	Nannu Mian B. Shaik	Municipal Secretary	220
116	R. B. Venkat Rango Katti	Pensioner	223
117	Gurappa Rachappa Shett	Shetti, Municipal Commissioner and Local Board Member	226
118	Laldas Laxmanji *	Solicitor's Clerk	230
	SIND.		
1	H. E. M. James	Commissioner in Sind	235
2	R. Giles	Collector	237
3	C. E. S. Steele	Officiating Deputy Commissioner	241
4	Khan Bahadur Kadirdad Khan Gul Khan, C.I.E.	Deputy Collector	243
5	K. B. Sadik Ali	Ditto	247
6	Khan Bahadur Mahomed Yakub	Ditto	254
7	Wadhumal Chandiram	Pensioned Deputy Collector	*ib.*
8	C. MacIver	District Superintendent, Police,	255
9	Rahimtulla Khan	Inspector of Police	*ib.*
10	R. B. Lakshman Singh	Ditto	257
11	Mahomed Murid	Ditto	259
12	G. Judd	Head Preventive Officer	260
13	G. J. Barker	Abkari Inspector	261
14	Rao Bahadur Alumal Trikamdas	Deputy Educational Inspector	263
15	Brigade-Surgeon-Lieutenant-Colonel G. Bainbridge	Civil Surgeon	265
16	Brigade-Surgeon-Lieutenant-Colonel J. F. Keith *	Ditto	267
17	Surgeon-Major W. H. Corkery	Ditto	272
18	E. Mackenzie	Assistant Surgeon	273
19	G. M. Dixon	Ditto	274
20	J. E. Bocarro	Ditto, Lecturer, Medical School	277
21	Mulchand Gungaram	Assistant Surgeon	282
22	Elijah Benjamin	Civil Hospital Assistant	284
23	Shaikh Ali	Ditto	285

* Examined orally.
§ Invited to attend at a meeting of the Commission for oral examination, but failed to appear.

No.	Name.	Designation.	Page.
	SIND—*contd.*		
24	Dr. S. M. Kaka*	Municipal Health Officer	286
25	Makhdum Dost Mahommed	Zamindar	289
26	Shet Vishindas	Ditto and Contractor	290
27	Rev. A. E. Ball	Missionary C. M. S.	294
28	K. S. Mahomed Laik	Mukhtyarkar	296
29	Pribhdas Shewakram	Secretary, Band of Hope	299
30	Tirithdas Hasrajmal	Merchant	301
31	Bhai Pesumal Narumal	Merchant and Drug Farmer	302
32	Amarumal Pritamdas	Hemp Drugs and Opium Contractor	307
33	Manghanmal Alumal	Ditto	308
34	Shet Dayaram Kishenchand	Ditto	309
35	Din Mahomed	Contractor and Employer of labour	311
	BERAR.		
1	A. Elliott	Deputy Commissioner	313
2	Khan Bahadur Shamsuddin Ali Khan	Officiating ditto	*ib.*
3	C. Shamrao	Attaché to the Resident at Hyderabad	*ib.*
4	Rao Bahadur Vaman Narayan Bapat	Extra Assistant Commissioner	315
5	N. P. Joshi	Ditto	*ib.*
6	J. R. O'Grady	Ditto	316
7	Krishnarao Hari	Officiating ditto	317
8	Abarao Jawroo	Karbhari Patel and Special Magistrate	320
9	A. Ardagh	Deputy Superintendent of Excise	321
10	J. C. Watcha	Excise Inspector	323
11	Waman Ganesh	Tahsildar	324
12	Vickooji Narain	Ditto	327
13	Vinayak Appaji Kaur	Officiating ditto	329
14	Luxman Gopal Deshpande	Naib Tahsildar	331
15	Colonel C. T. Lane	Inspector-General of Police	333
16	H. A. Heath	District Superintendent of Police	*ib.*
17	N. R. Cumberlege	Ditto	*ib.*
18	Surgeon-Major C. L. Swaine	Officiating Sanitary Commissioner and Inspector-General of Dispensaries	334
19	Surgeon-Major R. B. Roe	Civil Surgeon	335
20	Surgeon-Captain E. W. Reilly	Civil Surgeon and Superintendent, Central Jail	336
21	O. W. Jones	Civil Surgeon	*ib.*
22	J. Morrison	Ditto	337
23	W. J. Montgomery	Ditto	338
24	S. Baijnath	Medical Officer, Mady Hospital	339

* Examined orally.

No.	Name.	Designation.	Page.
	BERAR—*contd.*		
25	S. G. Steinhoff	Medical Officer in charge of Khamgaon Charitable Dispensary	341
26	Dinker Narayan	District Superintendent of Vaccination	342
27	M. Doorgiah Pillay	Hospital Assistant	343
28	M. Poonam Balam Moodeliar	Ditto	345
29	R. N. Mudholkar	Private Medical Practitioner	346
30	G. V. Khot	Ditto	*ib.*
31	Khan Bahadur Nawab Muhammad Salamulla Khan.	Jagirdar	348
32	G. S. Khaperde	Pleader	349
33	Yeshwant Vaman Dighe	Ditto	350
34	Niamat Khan Bilan Khan	Merchant	353
35	Lakshman Atmaram	Ditto	354
36	Khaja Abdul Baki	Money-lender	356
	AJMERE-MERWARA.		
1	G. Bennett	Abkari Inspector	359
2	G. W. Gayer	District Superintendent of Police	360
3	Surgeon-Major D. Ff.-Mullen	Civil Surgeon	361
4	Sheikh Elahi Bakhsh, Khan Bahadur	Retired Doctor and Honorary Magistrate	*ib.*
5	Asghar Ali Khan	Hospital Assistant	363
6	Abdul Kayum	Hakim	*ib.*
7	Jati Amar Hansa	Baid	364
	COORG.		
1	A. Bopanna	Planter	367
2	Mukkati Iyappa	Cultivator	368
	BALUCHISTAN.		
1	Major G. Gaisford	Deputy Commissioner	369
2	Kazi Imamuddin	Extra Assistant Commissioner	*ib.*
3	Kedar Nath	Head Clerk of the Political Agent of Kalat	370
4	Muhammad Yusuf	Hospital Assistant	*ib.*
5	Waryam Singh	Ditto	371
6	Muhammad Akbar Ali Khan	Ditto	372
7	Bhagwan Das	Ditto	*ib.*

No.	Name.	Designation.	Page.
	BURMA.		
1	Colonel H. R. Spearman *	Commissioner	375
2	Lieutenant-Colonel C. B Cooke *	Ditto	376
3	J. E. Bridges *	Ditto	377
4	Major B. A. N. Parrott	Offg. ditto	380
5	A. R. Birks	Commissioner	*ib.*
6	J. K. Macrae †	Deputy Commissioner	381
7	K. G. Burne *	Ditto	*ib.*
8	Major W. F. H. Grey	Ditto	383
9	A. M. B. Irwin *	Ditto	*ib.*
10	H. Adamson	Ditto	384
11	H. G. Batten ‡	Ditto	*ib.*
12	Major G. S. Eyre	Ditto	385
13	W. N. Porter	Ditto	386
14	S. H. T. de la Courneuve	Ditto	*ib.*
15	A. L. Hough	Ditto	387
16	J. S. D. Fraser *	Offg. ditto	*ib.*
17	R. C. Stevenson	Ditto	389
18	R. G. Culloden †	Assistant Collector, and Superintendent, Preventive Service	*ib.*
19	E. Lewis †	Excise Officer	390
20	Major S. C. F. Peile †	Inspector General of Police	392
21	J. D. Mercer	District Superintendent of Police	*ib.*
22	R. W. Martin	Ditto ditto	393
23	A. G. Mayne	Ditto ditto	*ib.*
24	A. J. A. Jardine	Ditto ditto	*ib.*
25	W. G. Snadden	Ditto ditto	*ib.*
26	M. J. Chisholm	Ditto ditto	*ib.*
27	E. H. Molloy	Ditto ditto	394
28	C. M. Prendergast	Ditto ditto	*ib.*
29	W. H. Tarleton‡	Ditto ditto	*ib.*
30	E. G. Mumford	Ditto ditto	*ib.*
31	R. A. E. Castle	Ditto ditto	*ib.*
32	A. A. St. C. Miller	Ditto ditto	395
33	H. P. Pedler	Ditto ditto	*ib.*
34	A. D. Kiernander	Ditto ditto	*ib.*
35	R. L. Cumberland	Offg. District Superintendent of Police	*ib.*
36	E. A. W. G. McDougall	Ditto ditto	*ib.*
37	Brigade-Surgeon-Lieut.-Col. D. Sinclair†	Inspector General of Jails, Chief of the Civil Medical Department, etc.	396
38	Surgeon-Lieut.-Col. O. Baker †	Civil Surgeon and Superintendent, Lunatic Asylum	*ib.*

* Examined orally. † Examined orally only.

‡ Summoned to attend at a meeting of the Commission for oral examination, but was unable to appear.

No.	Name.	Designation.	Page.
	BURMA—*contd.*		
39	Surgeon-Lieut.-Col. P. N. Mookerjee *	Civil Surgeon	397
40	Surgeon-Major S. H. Dantra *	Ditto	398
41	Surgeon-Major P. W. Dalzell	Civil Surgeon and Superintendent, Central Prison	399
42	Surgeon-Major G. T. Thomas	Civil Surgeon	400
43	Surgeon-Capt. R. E. S. Davis*	Superintendent, Central Prison	401
44	Surgeon-Capt. R. H. Castor	Civil Surgeon	*ib.*
45	O. L. Munshi*	Ditto	402
46	Mahendra Nath Roy	Resident Medical Officer, Rangoon General Hospital	403
47	Maung Thin†	Assistant Surgeon	404
48	Sona Mull	Civil Hospital Assistant	405
49	Right Rev. J. M. Strachan†	Bishop of Rangoon	406
50	Saw Maung †	Ex-Sawbwa of Nyaungywe State	*ib.*
51	Kungyi †	Uncle of Sawbwa of Hsipan	407
52	Kinwun Mingyi, C. S. I. †	Prime Minister to the late Governor of Burma	*ib.*
53	Myowun U. Pe Si, C.I.E. †	Late Town Magistrate of Mandalay	408

* Examined orally.

† Examined orally only.

EVIDENCE OF BOMBAY WITNESSES.

1. *Evidence of the* Hon'ble Mr. T. D. Mackenzie, *Commissioner of Customs, Salt, Abkari and Opium, Bombay.*

Oral evidence.

Question 1.—I have little special experience about the hemp drugs. The subject attracted little attention until this Commission was appointed. On 1st August I completed twenty-eight years' service. I have served in every capacity in the executive administration, except Divisional Commissioner in actual charge. For two periods I have been Commissioner of Excise, making together about eighteen months.

Question 59.—The use of the hemp drugs may be said to be general; but I am not able to speak with any personal knowledge as to the proportion of the population which uses them. The only knowledge I have of increase and decrease is based on the figures given in my reports. My impression is that cultivation is on the decrease in consequence of the restrictions imposed by the regulations for sale of the produce. There is only one wholesale vendor besides the cultivators, and he is in the Kolaba district. He imports from other districts, and supplies the Bombay market. The local supply of the drugs is, of course, supplemented by imports. These imports seem to show an increase in the Northern Division, and the drugs come for the most part, as well as I can ascertain, from Ahmednagar and Satara. But the increase in recent years is not very important. In the Central Division there is a tendency in the imports to decrease; but I do not think there has been any material reduction in consumption in the Division. There is a material increase of imports in the Southern Division, notably in the Dharwar district. This indicates an increase of consumption, and the tendency is still to increase. On the point whether the consumption of the whole presidency is growing or falling off, I should refer to the figures of retail sales supplied by the licensed vendors. These are as trustworthy as we can get; but they cannot be regarded as better than approximate. If there is any tendency to general increase of consumption it is very slight indeed.

Regarding the substitution of drugs for alcohol or the reverse, I cannot speak with great confidence. I do not think there is cause to believe that drug consumers are taking to liquor. There is no temptation to do so. I certainly think liquor consumers are not taking to the drugs. The classes of the consumers of the two intoxicants are quite distinct. Theoretically, the cheapness of the drugs would be a temptation to people to consume them; but practically the habits of the people prevent the change taking place.

I have had a good many years' experience as Magistrate and Collector in Ahmedabad, Belgaum, Thana, Broach, Khandesh, and I cannot recall any cases in which crime was traceable to the use of ganja or bhang. I cannot speak as to the effect on people's health, for the consumption is so trivial. I have certainly not noticed any deterioration in the health of the people from this cause. I should, therefore, be opposed to the prohibition of the drug or any severe restriction. The effect of such restriction would, in all probability, drive the people to more deleterious drugs, such as dhatura, which is ready to hand in every village. I have not known dhatura to be used as a substitute for the hemp drugs, or as an admixture for strengthening the effect of the hemp drugs. Though I have not this experience, still I think it quite possible that the ascetic class would take to it. No other alternative drug suggests itself to me at the moment. The ascetic class would not take to alcohol, because they could not afford it. If the price of the hemp drugs were much raised, the ascetics would probably stint themselves of food in order to get the drugs and so do themselves great injury. I do not think the labouring classes, who use the drugs, would take to dhatura. They would rather take to alcohol. I think this would probably do less harm, the liquor being toddy or spirit of good quality, such as is supplied from central distilleries, than the hemp drugs do. I refer in these answers to the moderate use of either intoxicant. I do not think hemp consumers would take to opium, because it is an intoxicant of a different character. Those who indulge in a strong stimulant would not be likely to take to a sedative drug. In this respect I should wish to modify the concluding portion of paragraph 17 of my memorandum. As regards the objects which Government should keep in view in reference to excise of these drugs, I think there is a demand for the hemp drugs, and that the demand will be satisfied legitimately or illegitimately. Government should, therefore, exercise a certain amount of control over the drugs, its measures should not be so restrictive as to induce smuggling and other crimes, and Government should at the same time be entitled to derive such revenue as it legitimately can from this source. The policy should be one of restriction so far as restriction is possible, and I base this opinion on the reputed effects of the drugs. If absolute restriction were possible, I think it would be a good thing. But the territories of the Bombay presidency interlace so extensively with foreign territory, where the cultivation of the drug cannot be controlled, that this would not be possible. I think also that the feeling, which would be aroused among the consumers and those who sympathise with, and are influenced by, them, makes such restriction undesirable. When I say reputed effects of the drug, I mean the effects of the drugs on the people generally, whether taken in excess or moderation. This view of mine does not extend to alcohol or opium. I am not able to

say what measures have been taken by Government to ascertain the effects of the drugs. Hitherto the matter has not attracted attention. I base my opinion of the injurious effects of the drug on the statistics of the lunatic asylums, and the understood fact that violent crimes are committed under the influence of the drugs, *i.e.*, by people who have primed themselves with them. But I am not able to say that the statistics in regard to insanity are trustworthy; nor have I, in twenty-eight years' experience, personally come across a case of violent crime of this kind. The Collector is responsible for the excise administration of the district. He does not visit the ganja shops with the object of seeing the effect of the drugs; nor does he collect the social wrecks caused by the drugs for purposes of inspection. I know of no general instructions issued by Government to undertake such inspection; nor, previous to this Commission, were any steps taken to cause medical men to inform themselves of the effects of the drugs. Since restriction must proceed on a knowledge of the effects of the drug, it is certainly the duty of Government to satisfy itself as to these effects before introducing any restriction of a prohibitive character. In the past action of Government there may have been a desire to protect the morals of the people; but Government action has been prompted principally by the right to derive revenue from this source. The drugs are reputed to stimulate and afterwards to intoxicate. I have never seen any one intoxicated from the drugs. I have seen plenty of natives intoxicated by toddy or country spirit. Intoxication is not harmless. I nevertheless regard the hemp drugs as more injurious, because they are by repute more maddening and more productive of crime. In the Kolaba Asylum returns there appear seventy-two admissions from spirit drinking and sixty-two from hemp drugs during the five years from 1888 to 1892. As the number of consumers of alcohol is much the larger, the proportion of insanity would tell against the hemp drugs. I cannot make any distinction between the effects of ganja, bhang and charas. Charas in this presidency is hardly used at all, and ganja is, according to my information, worse than bhang.

I think the taxation of the hemp drugs in this presidency might be raised; but the question would require detailed and careful examination. The ganja of this presidency is roughly manufactured, though the cultivation is careful enough. Referring to paragraph 10 of my memorandum, I regard the revenue assessment as disposing of the question of taxation as regards the cultivators. A direct tax would necessitate the adoption of a system of distinct wholesale vend. I see no objection to that as long as the tax does not fall on the cultivators. The variations in the retail price shown in paragraph 8 of my memorandum are no doubt excessive, and seem to indicate that there is room for taxation to regulate the wholesale value of the drug. But it is to be noted that the cheap rates prevail in districts where the plant is cultivated. I think it reasonable that the consumers in the neighbourhood of cultivation should get the drug somewhat cheaper than consumers at a distance. I think that the maximum of possession (40 tolas) might be very materially reduced. I certainly do not think that this sort of restriction is ineffectual. It has not been found so in the case of opium. There is no consumption on the premises in the mufassal. I think it ought to be prohibited if it is found to exist. I do not think the provision in clause 6 of the license Form A, sanctioned with Government Resolution No. 4421, dated 23rd August 1880, results in causing the markets to be flooded by the outgoing contractor with the drugs sold at a ruinously cheap rate. The man has sense enough to avoid laying in a very large stock of a perishable article. The large contract system, I have advocated in paragraph 11 of my memorandum, has the advantage that it enlists the farmer in the cause of excise. Government has a responsible man to deal with, who is more to be trusted than a number of petty shop-keepers. I think that it is desirable that Government should exercise the supervision over the drugs provided for in clause 5 of Form A. If a wholesome quality of drug is not ensured at the shops, people will be driven to get it by smuggling. The same principle applies as in the case of opium; but I would not go so far as to furnish a guarantee of the quality of the drug. The object is to protect the excise revenue.

---

2. *Evidence of* Mr. G. B. Reid, *Commissioner, Northern Division, Ahmedabad.*

Oral evidence.

I have been in the Civil Service for twenty-six years. I have served in the Central Division in Sind, and also in the Northern Division, of which I am now Commissioner.

My general impression in regard to the use of the hemp drugs is that in Northern Guzerat the use of bhang and ganja is very insignificant. The latter is confined to religious characters, such as bairagis, etc., and people, such as gamblers and others, of the loafing classes. The consumption is much larger in the city of Ahmedabad than in the districts, but is rather there confined to such classes as I have indicated than to the permanent local population. Ahmedabad is a great centre for travelling mendicants and has a large loafing city population. I would remark that I have not been asked to make any special enquiries, and my statement deals with my general impression. I am informed that ganja is more used in Surat than in Northern Guzerat, though in Surat also the consumption is not very large. I know little of other parts.

Bhang is consumed by much better classes of people. It is used by the best classes, principally Hindus. It is not confined to any class. The consumption is not large; but occasional use is to be met with among all classes. It appears to be principally used as a cooling drink in the hot weather with cooling spices, hardly at all in Guzerat for purposes of intoxication. There appears to be no religious prejudice against bhang, and no shame attaching to its use. The only class—a large and important one—who taboo it are the Swami Narains who take no strongly scented things at all, not even tobacco or garlic.

My impression is that the use of both has a tendency to decrease, partly because, among the upper classes, the use of liquor either openly or secretly is becoming much more common, partly because the sadhu or bairagi classes, the fakirs either Hindu or Muhammadan, are becoming smaller by degrees as enlightenment and education spread. These classes, as I have said, are great consumers.

I think that there is a tendency to substitute alcohol for drugs among the lower classes also: but it is more expensive than they.

Charas is hardly known in these parts. Yakuti is also hardly known. Majum is used to a slight extent.

In regard to effects, I have made no special enquiry, but from all I hear, the use of bhang is practically innocuous. You hear of a "bandani" of ganja, *i.e.*, a man who has the habit. You seldom hear of this with bhang. It is also said that jewellers when they have delicate appraising to do, clear their wits with bhang. This quality is frequently attributed to bhang. I have myself had no cases of ganja among my servants or dependents, but I know there is a general impression that ganja is bad, especially if you cannot satisfy the great appetite it produces. I have been told this. I have been told in asylums that some cases were due to ganja. I have also seen dissipated people of the loafer and fakir classes who had the red eyes and generally dissolute appearance popularly ascribed to ganja. But I have had no personal experience in my official capacity of the effects of the drugs among the people. There can be no doubt of the general popular impression which ascribes this dissipated appearance to ganja, but I have never known any popular opinion ascribing insanity to ganja. I have been told that in asylums only. I have had no cases myself in which insanity was attributed to ganja, *i.e.*, in which that connection was brought to my notice. I find that the intelligent natives scoff at the idea of a man preparing himself by bhang and ganja for any desperate act. I myself have seen no connection between hemp and crime. I remember the Ahmedabad case referred to by Colonel Humfrey before the Commission the other day. I was clearly of opinion that there was no connection between bhang and the crime, and I sent the case up for revision. The sentence was altered from one day to seven years. I know of no case in which a connection between hemp drugs and crime has been established.

I wish, however, not to be understood as saying that the effect of ganja is not deleterious. I think it is deleterious. I mean that the effect of the excessive use is deleterious. I think that excessive use is prevalent among the fakir classes and such disreputable classes as I have already indicated. It is not prevalent at all among the people generally. I do not think that prohibition is at all necessary; and as regards the part of the country with which I am acquainted, I do not think that the Government policy should aim at further restriction. The drug is mixed up with the religious ideas of the people, especially in regard to the followers of Shiva. Any actual restriction would thus be resented, and it is uncalled for. In regard to the effects of such restriction on the habits of the people, prohibition or severe restriction would tend to drive the people, perhaps, to opium, and certainly to liquor. I see no advantage in this whatever. Excessive consumption of drugs is checked by the difficulties of preparation. This is a natural restriction, which operates on the people generally.

I think that the present system of administration in regard to these drugs seems to have grown up in a haphazard way. But it seems to be working well, and I am unable to see necessity at present for much modification. I think that Government is entitled to control the growth of the hemp drug and so to regulate supply. I should say also that there would be no hardship in localising cultivation, and no *primâ facie* reason why it should not be done. The production in Native States would also have to be considered. I may add, to prevent misconception, that some of the ganja cultivation shown in the returns, *e.g.*, Broach and Surat, is really only bhang cultivation. The elaborate cultivation of ganja is quite different.

I have not studied the matter carefully; but, so far as I see at present, I see no adequate reason for so taxing the drug as materially to raise the price. I do not know any reason why taxation and the price of the drugs should be less here than in other provinces; but I have not personally studied this aspect of the subject. *Primâ facie*, there seems to me no reason for different rates in different provinces. Of course the facilities for smuggling would have to be considered. As to the best means of raising taxation, I should prefer not to give an opinion at present, as I have had no notice that I should be asked about these details.

---

3. *Evidence of* Mr. G. W. Vidal, *Chief Secretary to the Government of Bombay.*

Oral evidence.

Question 1.—I am Acting Chief Secretary to Government. I have been in the Civil Service over twenty-six years, and served in the Poona, Satara, Ratnagiri, Broach and Thana districts.

Question 25.—I have never made any special study of this question; but I can state that I never as a Magistrate had any case before me in which crime was associated with hemp drugs. I have had no experience of the extent of the use of the drugs from their effects on the people. Inspection of shops has shown that the consumption is very small as compared with the population of the presidency. I have no special information as to whether consumption is increasing, and no reason to believe that it is so. It has never come to my notice that alcohol is being substituted for the drugs, or they for alcohol, to any extent.

Question 45.—The effects of the drugs have never forced themselves on my notice in any way either as a Magistrate or as a Revenue Officer. I have never observed any connection between them and crime. I have certainly heard insanity frequently attributed to hemp drugs. I cannot specify cases or discriminate between cases I have seen as a Magistrate and those in the asylum. I cannot recall individual cases. I have heard (from asylum records, etc.) that insanity has sometimes been attributed to the different forms of hemp drugs. I have myself made no special enquiry, and have had no opportunities myself of coming to any conclusion on this subject. I have met many lunatics about the country outside of asylums, but I have no reason to attribute their insanity to hemp drugs. I think enquiry was made as to the connection of hemp drugs with insanity in 1873; but I am not able to say anything beyond what the papers may show.

Question 59.—I think that total prohibition would hardly be possible; and I think that, as far as can be judged at present, it would be both

unnecessary and impolitic. In saying this I refer to ganja as well as bhang. As at present advised, I do not think that adequate cause has been shown for any further restriction in this presidency than at present exists. Cultivation is restricted by the smallness of demand, and also by the restrictions on sale. It is not now so extensive as to call for further restriction. My attention has not, however, been specially drawn to the extent of cultivation as compared with Bengal, etc.

I think that the system which has been in force for the last thirteen years has worked well, and I am not prepared to suggest any modifications of that system at present. I have seen the memorandum prepared by the Hon'ble Mr. Mackenzie, and his views, as there expressed, have my general concurrence. I do not think, however, that there is any objection to a direct excise tax on the drugs on account of the existing revenue assessment on cultivation. As to the imposition of such a direct tax, as I have said, I do not know of adequate cause for this; but its imposition is not rendered impossible, in my opinion, by the circumstances of the revenue assessment. I understand that in certain other provinces the cultivation of hemp is restricted to certain districts. I see no objection to such centralisation in this presidency; but I have not considered this question in all its details. In view also of the higher taxation in other provinces, I see no reason why there should not be a higher direct tax in this province. The disproportion between the taxation of liquor and of hemp drugs, and the relative dearness of liquor which results from this, also points to the propriety of increasing taxation on hemp drugs. I am quite unable to compare the relative effects of hemp drugs and alcohol. I have seen more evil from alcohol. You cannot traverse such a district as Thana without seeing a great deal of drunkenness. On the other hand, I have never personally seen a man whose intoxication was due to hemp drugs. I do not know, however, that I could discriminate between the two.

I have not studied the table at page 20 of the last Abkari Report (1891-92), and am not able to explain details and the different ratios to population in different districts.

I think that the condition (clause 5) in the present license for vend goes far enough in the direction of securing the quality of the drug sold.

I think that the objects which Government should have before it in excise administration are to control, as far as possible, the cultivation, production and sale of the drugs, to supply reasonable facilities for meeting the necessary demand for them, and to raise such revenue as may be possible without going to such a point as to encourage illicit practices. The policy of the Government should be regulated by reference to effects thus far, that the worse the effects the greater the restriction and the higher the taxation. I think that the effects of excessive consumption have to be taken into account as well as those of moderate consumption. It is so in regard to alcohol. In fixing taxation so high as to check excessive use, there is, I think, a heavy burden on the moderate consumers. So far as I see at present, drugs should be treated in very much the same way. It is on these grounds that, so far as I see at present, I would propose increased taxation on the drugs.

---

4. *Evidence of* Mr. W. Porteous, *Collector of Poona.*

The special point on which my evidence is wanted by the Commission is as to "whether the effects of consumption of hemp drugs have forced themselves on my notice or not." I have no special knowledge of hemp drugs, of the classes who consume them, or of their effects on the consumers. Were I to give evidence, all I could say is that, having served in eleven of the eighteen districts of the presidency proper and in nearly every part of the province of Mysore, I cannot call to mind in my twenty-six years of service any criminal case I have had to deal with either directly or indirectly in which the consumption of hemp durgs in any form was mentioned or indicated as having led to the commission of the offence charged. I have read of offences alleged to have been committed by persons under the influence of bhang, but I have not myself had cognizance of any.

---

5. *Evidence of* Mr. E. J. Ebden, *Collector, Ahmednagar.*

1. Official opportunity as Collector of Ahmednagar, in which district the plant is grown.

2. The definitions may be accepted subject to the following observations. The terms siddhi, subzi, pati are not known locally. Bhang fulfils Dr. Prain's definition, and also includes the broken refuse left on the treading floor during the manufacture of ganja. Only flat ganja is known locally. The word chur or churi is known, and is understood by some to mean the fragments above referred to as bhang; and by others to mean the small side tops of the plants as compared with the larger terminal tops.

3. I know of none. A stray plant or two, evidently self-sown, of the cultivated variety is locally found here and there.

7. (*a*) Yes.

(*b*) No.

(*c*) Insignificant.

(*d*) For seed.

Bhang is made of the plants grown for seed, and is a bye-product during manufacture of ganja. Details of area have been already supplied through the Commissioner of Abkari.

8. None worth notice.

9. When grown for ganja the plant requires a rich friable soil, and land near a village site is often selected on account of the manure with which native habits supply it. Irrigation being necessary in case of insufficient rain bagait land is preferred. When the plant is grown for seed or for the manufacture of bhang only irrigation is not essential, and in ordinary seasons any good jirait land will do. The soil is carefully prepared and well manured. Some persons assert that the effect on the soil is beneficial owing to the leaf manure

obtained, but the general opinion is that the crop is a hungry one. The seed is sown about the end of July in straight rows at intervals of a foot or more between seeds. About one seer of seed per acre is said to be required. It germinates in a week, and in a month attains the height of 18 inches. Weeding is carefully attended to, and if rain falls, irrigation is required every ten days or so if ganja is wanted. The lower branches are removed in order to force a good top. About six weeks after planting an expert is put on, who seems to be rather an expensive item in the cost of cultivation, getting Rs. 8 or Rs. 9 per month and looking after two or three acres. His business is to exterminate pernicious plants, about the nature of which the ordinary agriculturist appears to have rather hazy notions, and if he finds symptoms of mischief and can trace no local cause, he has to search the country round about for it.

So far as I, with small botanical knowledge, can judge from the examination of specimens, the plant is both monosexual and bisexual, and the plants that have to be exterminated are the male and the bisexuals, since ganja is alone formed by the non-fecundated flower-top of the female plant. There are several local names for the plant in all its kinds and stages, and when suffering from peculiar diseases that are said to attack it. I can only vouch for the following, which have come under my observation :—

Male plant . .	Bhangira or dhatura (the latter name being identical with that of the common poisonous plant).
Bisexual ,, . .	Tik.
Female plant when kept from seeding.	Ganja.
Ditto when partly gone to seed.	Morai.

There are other names, such as shewara, ropda, ardhanar, of which I have not seen specimens. I imagine that the last must, as the word implies, be the bisexual plant or tik. The morai is not exterminated, but is simply regarded with regret, its meaning being that the male has somehow got access and partly spoiled the crop. The result of the expert's work on the average is that half the crop is thinned out, for he does not pretend to be able to diagnose the seed before planting, which some seem to think he ought to do.

When the crop is grown for bhang, and of course when grown for seed, the services of the expert are not required. Nor is irrigation required when the plant is well established. The crop matures in between three or four months, maturity of the ganja crop being judged by the stickiness of the tops. Rain spoils it at this period. The outturn of ganja is estimated to be from 4½ to 7½ maunds per acre, according to soil and season. The stems are used for fuel and the refuse for manure or for cattle.

10. No. Same.

11 and 12. No.

13. Not restricted.

In Ahmednagar it is sparsely grown in all talukas, except Akola and Jamkhed. I am led to suppose that these talukas have too mild a climate and too heavy average rainfall to make the cultivation certainly profitable. The cultivation is most common in the Nagar taluka at an elevation of about 2,500 feet, with an average rainfall of 26 inches, and in the Rahuri and Newasa talukas. A rich soil, with means of irrigation, appears to be necessary, and clear skies are wanted towards and during harvest.

14. They are all forthcoming, but principally—

(*a*) Ganja.

(*b*) Charas is a casual bye-product not put on the market.

(*c*) Bhang is prepared to a small extent, and the name is given to the refuse of the ganja floor as well as to the drug prepared from male and seeded female plants.

15. Nothing is known locally about the wild plant, so these remarks refer to the cultivated plant only.

(*a*) *Ganja*—

Harvesting methods differ somewhat. In some cases the tops are all pulled off by hand. In some they are cut. In some the central largest tops are collected and treated separately as first sort ganja, the central tops of side branches form second sort, the other smaller tops are third sort and are called chur.

The further process is much the same in all cases. The tops are heaped according to taste in narrow rows or in large squares about six inches thick, the different qualities when separately collected being separately heaped. The heaps are then trodden under foot. Some manufacturers tread the fresh tops at once, some let them dry first for various periods. After treading it is turned over by hand and again trodden. The process of turning and treading is repeated at intervals for three or four days with local variations of treatment in the intervals. In some places it is heaped in round heaps called chakis, and weighted atop till midnight, and then opened up and scattered and ventilated till dawn, when it is again laid out and trodden. And so on till it is judged to be ready, when it is packed in bags, and as a rule is speedily removed by the wholesale purchaser. The treading floor is sometimes prepared like an ordinary threshing floor with clay and cowdung. I have lately witnessed the operation of treading, and in that case the floor was simple mooram soil on a nulla bank, and had undergone no preparation beyond cleaning and sweeping. The ganja was spread in squares of 15 or 20 feet wide and about 6 inches thick. A line of eight or ten men danced on it to the music of a tom-tom. Treading began on the outer edge of the heap, and was continued in a spiral until the centre was approached, when the men fell out one by one as the space grew smaller. They followed close on one another, dancing sideways in the leader's footsteps. The tom-tom appeared to be highly necessary and kept them at it.

(*b*) *Charas*—

This is locally a bye-product which is not brought on to account, but appears to be the harvesters' perquisite, who probably part with it to friends who smoke, if they don't want it themselves. It is the resinous substance that sticks to the hands or collects on the sickle when plucking or cutting the tops. The hands are now and then rubbed together, and the charas is collected in the shape of a pill, which is naturally half dirt and sweat and half charas. A piece about the size of a marble may perhaps be the reward of a day's work.

(*c*) *Bhang*—

This name is locally given indifferently to the refuse of the treading floor where ganja is pre-

pared, and to the produce of the seeded plants and of male plants when the crop has been grown for seed. In the latter case the tops are laid on a floor and the seed is beaten out with sticks or trodden out by foot. The seeds are separated from the mass by means of a sieve, and the balance of broken leaves, etc., is called bhang.

The above include all the local forms of preparation of the raw drug. The question is not understood to refer to the further manufacture for consumption, which is described in answer No. 29.

16. (*a*) Not quite understood what is meant. If bhang drink is referred to, the answer is yes. If dry bhang, the answer is that it is prepared out-of-doors.

(*b*) Yes.

(*c*) Not known.

17. No particular class. The preparation of ganja and bhang is ordinary coolie work.

18. Ganja and bhang deteriorate. No information about charas. They become quite useless. From one to three years, according to care taken. Apparently exposure to cold and damp causes deterioration. No special measures to prevent deterioration are locally known.

19. Charas is alleged to be given to children as a substitute for opium, the use of which, as a means of quieting them, is locally prevalent. Ganja is locally used for all the purposes for which bhang can be used, *i.e.*, it is eaten in the shape of majum, yakuti, and gulkand, and drunk in the form of ghota.

20. The use of charas is too insignificant to enable comparison to be instituted. What is obtained is smoked by such ordinary smokers as can lay hands on it.

21. Only flat ganja is known locally.

22. The only charas to be had locally is that described in answer to question 15. It appears to be the perquisite of the labourers to whose hands it sticks and is by them parted with to local smokers for what they can get for it, or is used by themselves. (See answer 19). It is not sold at the shops.

23. It is not known to be smoked locally.

24. According to officially collected information, out of a population of 888,755, there are only 127 bhang drinkers and 168 majum eaters, of which latter 151 live at Ahmednagar, where the only majum shop is situated. The principal drinkers are said to be Marwaris. Majum is eaten by the wealthier classes, and is said to be the special dainty of wrestlers.

25. The returns of retail sale at shops show a fairly steady consumption. A hasty census taken throughout the district indicates that the number of smokers, in a population of 888,755, is 6,134, or ·69 per cent. The number of drinkers and eaters is utterly insignificant. In the absence of any conspicuous cause for increase or decrease, and considering that the habit of smoking is not considered creditable, I am inclined to think no change either way is to be suspected.

26. The only information that it has been possible to collect relates to (*a*) and (*b*). Of 6,134 ganja smokers, 372 are excessive smokers. Of 127 bhang drinkers, 10 drink excessively. Of 168 majum eaters, 16 eat excessively.

27. In the chapter on "Population," in volume XVII (Ahmednagar) of the Bombay Gazetteer, it will be found that the habitual use of the drug is predicated of a large proportion of the races and classes described there. I have had some of the ganja shops watched for a week, and find represented among the purchasers not only most of the people to whom the habit is ascribed in the Gazetteer, but also a number of classes in the description of which the Gazetteer makes no mention of hemp. The following is a combined list of classes of consumers, as extracted from the book, and noticed during the week's observation of the shops. The former are entered in Roman, the latter in italics; and where the observation of the shop has confirmed the assertions of the Gazetteer, an asterisk has been added to the name:

Brahmans.

Deshasth.*
Marwaris.*
Paradeshi.*
Kost.

Traders.

Gujrathi Wani.*
Komtis.
Lad Wanis.*
Marwaris.
Jangams.

Craftsmen.

Beldars.*
Gaondis.*
Ghisadis.
Jain Shimpis.*
Kattais.
Khatris.
Koshtis.*
Bunds.
Lohars.*
Mochis.*
Otaris.
Halvais.
Saltangars.
Sonars.*
Sutars.*
Tambats.
Vadars.*
Kaikadis.
Kasars.
Kumbhars.
Niralis.
Telis.
Padomsalis.
Rangaris.

Servants.

Parits.*
Nhavis.

Shepherds.

Gavlis.
Dhangars.

Labourers.

Kahars.
Bhois.
Lamans.
Vanjaris.

Depressed classes.

Bhangis.*
Mangs.*
Mhars.*
Chambhars

Beggars.

Manbhaos.*
Gondhalis.
Gosavis.
Kolhatis.
Bairagis.
Fakirs.
Bharadis.

Musalmans.

Kasabs.
Takars.
Pinjaras.
Servants.
Landowners.
Low Deccanis.
Ghair Mahadis.

(*My information from the shops does not give subdivisions, but the largest number of purchasers in any one caste were in Musalmans.*)

Husbandmen.

Kunabis.
Malis.
Marathas.

Musicians.

Ghadshis.
Gurays.

It is impossible without an exhaustive enquiry, of which time and opportunity have not allowed, to give a satisfactory answer to the latter part of this question. The purchasers at the shops gave many reasons for their use of the drug. Some, the most habitual users, said they sought intoxication; others wanted it for the relief of pain in joint, stomach, head, etc.; others sought relief from fatigue or strength to labour. The majority of the purchasers appear to have been men of the labouring classes, *i.e.*, husbandmen and coolies, and poor Musalmans; and craftsmen, such as weavers, goldsmiths, blacksmiths, etc., And in the majority (80 per cent.) of cases the purchase did not exceed one pice worth, which is a clear indication that the drug is a poor man's luxury. There appears to be no doubt at all that the principal consumers as a class are the begging ascetics, such as fakirs, bairagis, etc., who use from quarter pound to one pound of the drug daily.

After reading the Gazetteer, I was somewhat

astonished at the result of the rough census of smokers and drinkers throughout the district, which gave a total of only 6,429, or about ·7 per cent. of the population. On comparing this result, however, with the retail consumption, which last year reached an average of only 1,760 tolas per day, I am not inclined to think that my census is very far from correct.

28. The common weight used for petty sale is the old copper coin, the Shivrai, the average weight of which is 135 grains or three-fourths of a tola. A man who does not smoke more than this quantity (which costs one pice) per day, is classed as a moderate consumer. But many make this quantity last three or four or more days. An excessive smoker uses from half anna to four annas worth per day, but there are men who can smoke any quantity.

29. *Smoking ganja.*—The ganja is taken in the palm of the hand and washed and kneaded in a dozen or more changes of water. After the final squeeze it is mixed with about a third of its quantity of dry tobacco, and placed in the chillum with a lighted lump of cowdung or charcoal atop. As seen by me, the chillum was a conical bowl of clay about eight inches long. A piece of damp rag was placed round the lower aperture, the chillum was held in both hands, clasped so as to be air-tight, and the smoke was sucked between the thumbs. The chillum was passed from hand to hand after two or three whiffs, and the form of rinsing the rag in water was generally gone through as a preliminary by each smoker.

Drinking ganja or bhang. Receipts for ghota. —(1) One tola ganja or bhang fried in ghi; half tola pepper; half tola dry ginger. Soak in water and pound well, mix with two seers of milk and two seers of water. Shake and mix thoroughly and pour from pot to pot.

(2) Soak the drug in water for a few hours, then pound and strain through cloth. Add milk, sugarcandy, pepper, almonds, kismis and spices to taste.

Eating the same.—(1) Grind to powder and mix a little ganja or bhang, sugarcandy, almonds, and kismis. Mix with the milk and bake over a slow fire till solid.

(2) Dry ganja is thoroughly washed and then mixed with ghi in the proportion of four seers of ganja to one seer of ghi. The mixture is boiled continuously for three or four days, water being added from time to time to prevent scorching. The ghi eventually becomes green. It is then filtered and allowed to stand till congealed. The congelation floats on the water and is skimmed. The product is mixed with melted sugar in the proportion of five tolas to four seers of sugar. Spices are added to taste, and the preparation is the base of majum, yakuti, gulkand, etc.

(3) The ganja is first cooked with water and ghi for two or three days continuously, and the extract is passed through a thin cloth. To make one seer of majum, $\frac{1}{8}$ to $\frac{1}{4}$ seer of ganja, $\frac{1}{16}$ seer of ghi and 1 seer sugar are required. The extract when cooked up with more sugar, forms the simple majum.

(4) *Yakuti.*—1 seer of the above extract; $\frac{1}{8}$ seer almonds; 1 tola cardamoms or nutmeg; $\frac{1}{4}$ tola saffron; $\frac{1}{16}$ seer pistachio; $\frac{1}{16}$ seer charuli.

(5) *Gulkand.*—Fresh rose leaves are squeezed in the hand and mixed with sugar-candy. The mixture is kept in corked bottles or jars for three or four months, when it forms a thick paste, which is added to simple majum.

(6) *Shrikand.*—Sugar and jagri are cooked together into a paste and added to simple majum.

Some well-to-do persons have their majum prepared according to their private recipes, with the addition of salammisri and similar good things. As to the quantity of these preparations that can be taken, it is said that ten tolas of ghota is enough for a casual drink but habitués can consume a seer without difficulty. Common majum is sold at 4 pies per tola, the consumption per individual varying from 1 to 20 tolas per diem.

Dhatura, except for purposes of crime, is only used by the most reckless habitués, such men as eat opium and arsenic into the bargain, to keep themselves going. The object of the other admixtures seems to be to drown the nasty taste of ganja. The only bhang massala traced locally is a horse medicine.

30. As to smoking, the ordinary smoker would prefer to smoke alone, unless there happened to be other smokers to pass the pipe to. The preparation of the pipe is a messy business, the practice is not considered nice, and the effects, except upon habitués, are not conducive to sociality. The practice is chiefly confined to the male sex, is often acquired at the age of 15 and carried on through life.

Ghota drinking is more of a social custom.

Children only get the drug medicinally.

31. The habit is easily formed. Opinions differ as to the difficulty of breaking it off. Apparently it is easy if a man makes up his mind to it; but old confirmed smokers are fit for nothing without it. The number of excessive users is comparatively so small that the tendency does not appear to be strong.

32. A reliable witness states that among Marwaris the use of ghota and majum is common on religious and festive occasions, such as marriage, a birth, recovery from illness, or after a fast. It is offered to guests, who take it or not as they feel inclined. The use on such occasions is generally temperate; but inveterate users take advantage of the chance of a good pull.

Searching the Nagar volume (XVII) of the Bombay Gazetteer, I find no reference to the use of the drug as part of any social or religious ceremony. *The shop accounts show no extra sale in the neighbourhood of any great religious festival*, and the custom of use on the Shivaratra is not observed locally nor considered essential.

33. The practice of smoking is considered somewhat discreditable. As far as religion is concerned, the drug has the advantage of not being proscribed like liquor. I should, therefore, attribute any adverse sentiment to the same feeling that exists against any habit that is liable to become debasing by abuse, and the people of this district are distinguished for their sober habits.

There is no custom of worship. The usual cocoanut is broken for luck at harvest, and sometimes incense is burnt and red lead sprinkled with the same object.

34. The obvious answer appears to be that the privation would at least equal that to be undergone by habitués of tobacco, opium or liquor if deprived of their means of enjoyment. In the case of the poorer classes the privation would be serious, as the drug is used to allay fatigue and appease hunger. This would especially be the case with fakirs, gosávis and other ascetics, to whom the drug represents the "Welshman's pipe." About 50 per cent. of this class would suffer very severely, as they could afford no substitute of equal effect.

35. Locally there would be no difficulty in prohibiting the cultivation and import. There would probably be smuggling. Serious discontent would be caused among consumers, but not such as to amount to political danger. I would not anticipate recourse to alcohol, as the majority of smokers are too poor to be able to afford it. There might be recourse to opium.

36. Local statistics afford no reason. The consumption of alcohol is very steady.

37. All that is known locally is that charas is very much stronger than ganja.

38. No information forthcoming, except that what is locally supposed to represent chur is milder than ganja, it being either refuse or inferior tops.

39. Local opinion seems to be that smoking is more injurious than drinking. Ghota is considered to be a cooling drink, appetising and digestive when taken in moderation. Smoking is said by some to heat the system and to injure the constitution when carried to excess, unless accompanied by liberal diet, in which milk and ghi are essentials. Majum is said to be largely used by professional wrestlers as a stomachic and calmer of the system. I am inclined, therefore, to suppose that eating and drinking the drug is less injurious than smoking it.

40. Very little local information to be had. Ganja is said to be an ingredient in an astringent mixture, of which the medico kept other particulars to himself as a trade secret. Another prescribes it in dysentery and for loosening phlegm. It is frequently mentioned as an anodyne for scorpion sting, for which purpose it is said to be administered fried in ghi, which would be a simple form of majum. Purchasers at the shops often described themselves as buying it for pains and ailments. It is given to cattle and horses, apparently when off feed.

41. The answers refer to ganja.

(*a*), (*b*), (*c*) Yes.

(*d*) To secure concentration of attention. To appease hunger.

Answers to (*a*) and (*b*) are founded on the assertions of habitual smokers and drinkers.

Popular opinion is that ganja smokers escape fever and many other complaints.

It is asserted that the drug is used by goldsmiths and other doers of "barik kam" to keep their minds upon the work in hand, which use seems to be parallel to the alleged use by ascetics for concentration of thought on holy things. Ascetics, however, largely use the drug to appease hunger, and what would be considered excessive consumption in the case of others is moderate in theirs. I am told on good authority that native soldiers who have gambled away their pay employ the ganja pipe as a cheap substitute for food until in funds again. If bad luck lasts long outward symptoms betray them, and they catch it at orderly room.

42. The moderate use of ganja appears to be quite harmless so long as consumption is proportioned to liberality of diet. A plentiful diet, including copious milk and ghi, is said to render the constitution unassailable by ganja. In such cases it gives appetite, aids digestion, opens the bowels, drives away fatigue, and induces refreshing sleep. So I am told by smokers.

43. It is said that, as a rule, they are quite inoffensive. But a beggar who has acquired 'concentration of thought' by the use of it will be a nuisance till his object is attained by receipt of alms. If this be so, it is probable that much must depend on the natural suavity of the smoker's disposition. Yet I am assured by an habitual excessive smoker that it calms the temper.

44. It is described as partial intoxication, on recovery from which a feeling of freshness supervenes, fatigue vanishes, and, if sufficient is taken, hunger disappears. When taken regularly by regular livers, appetite is promoted. The after-effect appears to be desire for more, and the want of gratification produces longing and uneasiness.

I attempted to gain practical information by treating a few habitual consumers to ganja and ghota, etc. After about 1½ hour, in the course of which four or five men smoked that number of pipes in company (including a pipe of Benares ganja and one of charas) and drank a couple of seers of ghota, the party withdrew apparently as sober as when they came, and saying that they had enjoyed themselves very much. One member became very garrulous; but it was probably his nature.

45. Local opinion, as far as sounded, has attributed none of these effects to the moderate use of ganja when accompanied by sufficient diet. My enquiries have of necessity not been extensive enough to enable me to offer remarks worth recording on this page. In the whole district I am told of seven cases of madness, 57 of addleheadedness, and 124 of impaired constitution, attributed to the use of the drug; but I have not secured details of the cases for want of time.

47 and 48. Local opinion is in the negative.

49. They are said not to be so used. Reference is made by one witness to a medicine for promoting vigour, in which ganja is used in combination with the ash of some metal; but his knowledge was small.

55. It is said that a novice could be caused complete stupefaction by the drug in any shape without admixture.

57. Charas is not locally known to be eaten or drunk.

Ganja is locally used for the manufacture of edible and drinkable forms of the drug in the same way that perhaps bhang is used in other localities. In these forms the action is said to be slower in arrival, but longer in duration than when the drug is smoked.

58. I think it is working well.

60. I see no local reason for supposing that further control than exists is requisite.

61. The extent to which charas is produced is described in answer No. 15, and I do not think that interference is necessary.

62. There appears locally to be no reason for more control than exists.

63. No.

64. No. As far as I can judge the regulations work smoothly and successfully.

65. As far as the result of local enquiry goes, I think the taxation to be reasonable. Cases of excessive and unhealthy use of the drug amongst local residents are very rare. The moderate use appears to be harmless, and a small luxury is placed within reach of the poor.

66. I have no knowledge of the subject. Any distinction should be made to depend on the ascertained proportions of strength.

67. No.

68. No. They would be extremely objectionable.

69. Wishes would be consulted if occasion arose for considering the question of opening or closing a shop, as is always the case in the instances of liquor, or opium, or toddy shops. Local public opinion certainly ought to be considered.

70. No. I have no reason to suspect any abuse.

Oral evidence.

Question 1.—I joined the service 26 years ago, and I have served in six districts and in all the divisions, but chiefly in the Southern Division. I am now serving in Ahmednagar and have been there for the last two years.

Question 45.—I have had no personal experience of the effects of ganja smoking. The subject did not attract my attention until the last two months. I then had a census taken throughout the district of the number of persons who consumed the drugs moderately and excessively, of those whose health had suffered thereby, and those who had become insane. The proportion of smokers to the total population was, as well as I remember, ·7, and to the male adult population something under ·2. Seven cases of lunacy were reported out of a total population of 850,000, of whom 6,500 were smokers. Forty people were reported to have had their brains affected in more or less degree, and I think about 150 were recorded as having suffered physically. The statistics were collected by the mamlatdars through the village officers. The returns of consumers were approximately accurate as tested by the consumption of the shops. As regards effects, the accuracy cannot be guaranteed. I tried to test two or three of the cases by further enquiry without seeing the lunatics themselves, and the reports failed to satisfy me that the hemp drug was responsible for the insanity. I think the returns were prepared with perfect honesty. The matter is looked on with perfect indifference locally, and the enquiring officers were free of bias. I have absolutely no experience of the connection of the hemp drugs with crime. I cannot recall a single instance of a crime for which the hemp drug was responsible. It appears to me that the vast majority of the consumers are the very poor, who cannot afford a more expensive intoxicant, and that the deprivation to them caused by prohibition would be very serious. I consider it quite unnecessary to prohibit it. There would be no difficulty in restricting the cultivation to the districts of Ahmednagar and Satara. The cultivation in other districts seems so insignificant that the prohibition of it would hardly cause any inconvenience. In Ahmednagar the cultivation will more than half of it be found in the Ahmednagar taluka. The rest is in small patches scattered over eight other talukas. I believe the plant is cultivated to a considerable extent in the continuation, in the Nizam's territory, of the range of hills called the Balaghat, on which the greater part of the Ahmednagar cultivation is to be found. I see no objection to the system of storage and issue of the prepared ganja under Government control. I don't know the Satara district. The hemp drugs are very much cheaper than liquor now. For a pice a man can get enough ganja to last him for a week if he is a moderate consumer. There is, therefore, considerable margin for heavier taxation of the drug without driving the people to liquor or other intoxicant. I consider there is a considerable margin for taxation, though, as I have said, the drug is consumed by the very poor. I have no sympathy with the excessive consumer, and the moderate consumer would not feel a moderate increase. The most famous village as producing the best quality of ganja is Mehekri. The wild plant does not grow in the district spontaneously. Regarding the consumption of the ganja produced in Nagar, I believe the largest export is to Kolaba. I have been told that some is exported to Europe.

Letter from MR. EBDEN *appended to his evidence.*

1. With reference to my evidence given before the Commission on 19th December 1893, I have the honour to state that I have made inquiry into the extent of the cultivation of the hemp plant in the Ahmednagar district of the Bombay presidency during the period 1881-82—1893-94, and find that the average area of the cultivation during those 13 years has been 577 acres.

2. The taluka averages for the same period have been as follows :—

1	Ahmednagar	217 acres.
2	Newasa	169 „
3	Rahuri	89 „
4	Shrigonda	26 „
5	Parner	25 „
6	Kopargaon	19 „
7	Karjat	14 „
8	Sheogaon	12 „
9	Sangawner	5 „
10	Jamkhed	....
11	Akola	...

3. I expressed an opinion that the cultivation might be confined to the Ahmednagar taluka. On consideration of the figures before me, I desire to qualify that opinion by including the Newasa and Rahuri talukas in the permissive area, the cultivation there having been fairly regular and of considerable extent. In the other talukas it has been irregular and insignificant.

---

6. *Evidence of* MR. W. F. SINCLAIR, *Collector, Thana.*

1. None in particular. Whenever any statement in my evidence or in that of others forwarded by me clashes with those forwarded in his own department by Surgeon-Major Kirtikar, Civil Surgeon of Thana, the Commission need not hesitate for an instant about preferring the latter.

One can't serve twenty-five years without hearing something about the matter; but I never had any taste for it nor dealt much with such natives as have, and my duty has never forced it on my attention.

3. None.

7. Dr. Kirtikar's references to *Cannabis indica* as under cultivation in the Konkan are to plants cultivated in gardens in small numbers for private use, or in some cases for his own study, as besides his own garden he has more or less use of several others, including mine, for such purposes.

The plant is not cultivated in the Konkan as a field crop, nor even as a market crop in gardens, but it occurs in small numbers in many private gardens, and I have seen specimens that seemed to me to be self-sown, and afterwards taken care of by the gardeners. This cultivation is something like that of tobacco in English gardens and not much more important.

20. I can't recommend the Commission to trouble themselves about this district, where the consumption of hemp drugs by local natives is unimportant.

33. The habitual consumption is looked on as discreditable in the Thana district.

34. Probably not very serious. I don't think it is even found necessary in jails to allow these drugs, though I have known eight ounces of alcohol per diem allowed in one case (gradually diminished to vanishing point with complete ease), and we allow Burmese convicts tobacco.

35. You can prohibit anything, but the prohibition of so portable an article could not easily be enforced. If it were, I suppose the few who now use it here would take to dhatura (a common weed), opium, or country spirit.

36. I should say not; the consumption of country spirit in this (very drunken) district is apparently diminishing.

45. *Hemp Drugs Crime—Kennery Island Case.*—The accused was a native of Upper India, a man of unusual size and strength, probably 5 feet 10 inches high, and nearly 11 stone in weight. I forget his name. He was a washerman in the service of the light-keeper on Kennery Island, and got leave to go to Bombay for a few days. On his return he brought a stock of bhang (which he was described as "eating" habitually), and for several days was noticed to be more or less under its influence. Finally, at midnight he forced his way into the English light-keeper's bed-room, where the latter was sleeping with his wife. The lady was awakened by the noise of his forcing open the shut door. Almost instantly he rushed to her bed-side, caught her by the throat, and attempted to strangle her. She was a tall, strong woman and resisted stoutly, arousing her husband. The noise brought down the servants of the lamp from the lantern above, and the accused retreated under the bedstead, a heavy solid piece of furniture, where he defended himself for some time, but was at last dragged out, pinioned, and bound to a verandah post. The light-keeper telegraphed to me, then District Magistrate of Kolaba and resident at Alibag. I came off with the Superintendent of Police and two policemen to the island, and desired the Superintendent to hold his inquiry and proceed according to law. Part of what he and his men did was to let their prisoner escape, of which he only took advantage to walk down to a tank, drink and wash himself, and then, when they found him, surrendered quietly. He was taken to Alibag and put under medical observation in the subordinate jail. When reported sane and fit to be tried, he was tried by myself. The medical evidence was that, when admitted, and for some time after, he showed symptoms of being under the influence of bhang, and repeatedly asked for it. I tried him, and sentenced him to 18 months' rigorous imprisonment under section 457, Indian Penal Code. I think I remember getting the warrant returned in the usual way at the expiration of the term of sentence; at any rate I never heard of him as a lunatic or criminal again.

Panwell case.—The accused was a Brahmin of the Panwell taluka in the Kolaba district, a village accountant, always in bad health and in bad odour with his caste, neighbours, and superior officers on account of his dissipated and irregular habits. One morning he was found in a temple with the broken image of a goddess, and was prosecuted under section 295, Indian Penal Code. His defence was that the goddess fell in love with him and invited him to her arms. The medical evidence was that he was insane from the abuse of some preparation of hemp. He was sent to Kolaba Lunatic Asylum, cured and discharged, tried on the criminal charge, acquitted (on the ground of insanity I suppose), and reinstated in the public service. I did not take the case myself, but the papers relating to it necessarily came before me when he was sent to the Lunatic Asylum. Of his return cured, second judicial proceedings, and reappointment to the public service I know only by report, but trustworthy report. I understand that he has since left the service, but am not informed of the manner of his leaving it.

53. See the two cases above (answer to question 45).

55. No; this is done with dhatura.

58. It is working well.

63. No.

64. No, and of this I have seen a good deal when Collector of Kolaba, because, a very important ganja firm has its head-quarters (for mercantile convenience sake only) in the port of Panwell, and exports "urbi" (*i.e.*, to Bombay) and "orbi." It gave no trouble.

65. Quite reasonable and not a subject of complaint from any one.

68. No, and there is no need for them nor call for them.

69. Not in Thana, because the matter is unimportant. But if it were important, I would consult the villagers, as is always done in the really important case of liquor shops.

70. No facts and no smuggling into Thana. The Bombay contractor complained of smuggling from Kurla and Bandora (suburbs of Bombay, but in Thana District) into Bombay. But he now holds both the Thana and Bombay farms, and says that he is all right. The inference is that the hemp drugs smuggled into Bombay were such as had come into Thana legally.

Note by the Commission appended to MR. SINCLAIR'S *evidence.*

45. Records in the two cases called for and read—

(1) *Kennery Island case.*—This was a case in which the dhobi of Mr. Dyer, Light-keeper, Kennery Island, was charged with entering his master's bed-room at night and attempting to throttle Mrs. Dyer. He was sentenced by Mr. Sinclair to eighteen months' rigorous imprisonment. The Magistrate held "that the accused committed the offence when violently intoxicated by some preparation of hemp."

One witness, a lascar at the lighthouse, said in evidence: "Accused is a regular ganja-

smoker, but I do not know anything about his smoking on that particular occasion." On the other hand, another witness, Mr. Dyer's butler, said in evidence: "I have known accused about four or five months. I do not know anything about his using ganja."

There is no other reference to hemp drugs in all the evidence except in the statement of the Assistant Surgeon, who on 4th November 1887, said: "I know the accused Kunjandas since the 9th ultimo, when he was lodged in the Alibag jail * * * . I found him on that occasion to be suffering from narcotism; and from the subsequent observation, I am of opinion that this was produced by the excessive use of some preparation of hemp, probably ganja." This Assistant Surgeon was not examined as to the grounds of this opinion, but generally remarked that "the whole of the symptoms were consistent with a severe bout of ganja-smoking, lasting up to 8th ultimo inclusive." There is no mention anywhere of the prisoner asking for bhang; but in a letter of the Assistant Surgeon (not in his evidence) it is stated that the man asked for ganja and tobacco.

(II) *The Panwell case.*—The accused was a Brahman, said to have entered a temple and "found Parbatti's idol therein so beautiful that he embraced her and threw her down, breaking her into seven pieces." He was then insane and incapable of making his defence. He was tried two months afterwards, and was discharged by the Magistrate, who wrote: "I do not think there is evidence enough to persuade me to put the accused on his defence." Mr. Sinclair is therefore mistaken as to the termination of the case. The man was not acquitted on the ground of insanity, but discharged for want of evidence.

As to the cause of insanity, the papers show that the man was "insane for twelve years—an attack every year or two;" that the attack was preceded by "dissolute life;" and that its "supposed causes" were "ganja-smoking. Dissipation. Being rejected and deceived by his paramour." It is also stated that his father was epileptic and his own health "below par."

Oral evidence.

I have been 25 years in the Civil Service. I have served in every province in the presidency except North Canara. I have little personal acquaintance with the subject and have already placed at the disposal of the Commission the information I was able to collect. Speaking generally, I think the hemp drugs have no effect to speak of on the health of the people of this presidency. I regard it as a negligible effect. I think it may fairly be so described and I so treat it in my own administration.

I have known only three cases in my experience in which there was any apparent connection between hemp drugs and crime. The one is over twenty years old; and I have no details of any value about it. I did not try it. The other two cases are the Kennery Island case and the Panwell case. I have already brought these cases to the notice of the Commission and placed them (through their Secretary) in the way of obtaining full information regarding them. These are the only cases in which I have traced any connection between hemp drugs and crime. The Medical Officer (Dr. Pereira) concerned in the Kennery Island and Panwell cases is still in the same station.

I have no reason to think prohibition is called for. Had I thought so, I should have had more to say. A thing which so little obtrudes itself does not require such a measure. I believe in restriction. I can refuse and have refused new shops where not required. I can close any shop if it appears to be doing harm. I am not asked to make revenue of the drugs. I have complete power. But there are no appreciable effects. I find villagers object sometimes to a liquor shop. But I have never had any objection made to a bhang and ganja shop.

I consider that there is a margin for increasing taxation, having regard to the price of other intoxicants, the fact that the drugs are mainly used by the poor, and the danger of smuggling. It is difficult to judge from my experience, as my farms are suburban, and have to be considered in view of the Bombay contracts. But I consider that there might be a margin. I may add that the poorest of the poor drink toddy and spirits and consumers are not always the poorest.

My view of the general object of Government administration of the drugs is that it aims first of all at regulating their use and preventing intoxication. The making of revenue is a secondary object altogether. I have no suggestions to make in regard to the present system to improve it in view of these two objects. It might be different if I were serving in a country where the drugs were much used. In my district, as I have said, their effects are practically a negligible quantity. In any case, if anything was done to raise the price of ganja materially, it might be necessary to have subservient legislation regarding dhatura.

---

7. *Evidence of* Mr. F. L. Charles, *Collector, Belgaum.*

1. By serving for 24 years in various districts in the various grades of the Civil Service.

2. In this district *bhang* means powdered ganja. It is not known as subzi, etc. *Charas* is not used in Belgaum at all. The definition of ganja applies. Only flat ganja is sold in Belgaum. It is simply known as ganja.

3. The ganja plant grows wild, to a very small extent in this district. It is *not* cultivated in Belgaum at all. It is said to grow freely in Satara and Ahmednagar, but I have not been there.

4. Bombay hemp is called *tag* in Marathi, *sanabu* in Kanarese. Ordinary hemp—*ambadi* in Marathi, *pundi* in Kanarese. Both grown for fibres in this district. Only used for fibres. Ganja hemp is the name applied solely to the variety of which the drug is formed.

5. This district is 2,000 feet above sea-level.

The rainfall varies from 120 inches on the Ghâts to 25 in the eastern talukas.

6. There are so few plants in this district, I cannot say. I have only seen one plant, about 8½ feet long, with branches proceeding from a central stalk. The flowers were embedded amongst densely packed small leaves.

7. See answer 4. Only *ambadi* and *tag* are cultivated for fibres. No drug is made from them in Belgaum. No ganja is cultivated, nor are drugs made here from wild ganja.

8. There has been none.

9. *Tag* is sown as a whole field crop. *Ambadi* is sown as a row crop in fields of *bajri* and *tur* and some others.

10. None in this district.

11 and 12. Not in Belgaum.

13. There is no restriction on cultivating the ganja plant in Belgaum. The talukas near the Ghâts are said to be unsuitable. Those inland from the Ghâts can grow ganja and fibre hemps.

14. None. They are imported ready-made, that is to say, ganja (flower tips) is imported in the form of dried and compressed tips.

15. *Majum* is a sweetmeat looking like slabs of cream toffee. It is made of powdered ganja mixed with sugar and ghee boiled. It is eaten as a sweetmeat. Ganja itself is wetted, then rubbed in the hand to a sticky pulp, then mixed with tobacco and smoked. *Bhang* is powdered ganja mixed with spices, sugar and milk or water, and is drunk as a cooling mixture. It is called "ghota" in Marathi; Kanarese name not known. "*Phake*" is roasted ganja powdered and mixed with sugar and spices, eaten by male professional singers.

16. Bhang or ghota can be prepared by people in their houses. It can be prepared wherever ganja is grown.

17. There is no particular class. The licensees are Musalmans, Marathas, Jains and others.

18. It is said they keep for one year, but lose their effect as drugs entirely after two and-a-half years. This is stated by the ganja farmer for this district. No measures are known to prevent deterioration, nor are the causes known.

The import of ganja in this district has been as follows, for the period for which information is available :—

Year.	Quantity.		Revenue to Government.
	Maunds.	Seers.	
			₹
1887-88 . .	391	30	4,213
1888-89 . .	154	...	4,052
1889-90 . .	198	...	3,287
1890-91 . .	204	25	3,301
1891-92 . .	194	5	3,312
1892-93 . .	183	18	4,109

19. Ganja itself is only smoked. Charas is not used here.

20. Ganja is smoked chiefly by bairagis, fakirs and gosains, and to a limited extent by all classes. It is sparingly used by a few in all classes.

21. Only flat ganja is used here for smoking.

22. None here.

23. No.

24. A few of all classes drink bhang (ghota). It is chiefly used by persons in good circumstances. Majum sweetmeat is also eaten by a few of all classes.

25. It has decreased in this district since 1887-88 owing to the completion of the Southern Maratha Railway and the migration of the labourers thereon employed elsewhere.

26. This can only be guessed at. Perhaps—

(*a*) 80 per cent.
(*b*) 5 per cent.
(*c*) 13 per cent.
(*d*) 2 per cent.

100

27. (*a*) (*c*) and (*d*) are of all classes. (*b*) Habitual excessive consumers are bairagis, fakirs and gosains only. The reason for this is the life of hard privation and exposure they lead in their wanderings.

28. (*a*) One-fifteenth ounce, price 1 pie.

(*b*) Two-fifths ounce, price 6 pies.

29. Sugar and spices are used indifferently. Dhatura is not used. I know of no preparation such as bhang massala.

30. In solitude by classes other than bairagis. Chiefly confined to males. It is not usual for children to take these drugs in this district.

31. It is alleged that all these questions can be answered in the affirmative, but I have never seen any cases exhibiting excessive use or the difficulty of abstaining.

32. No such customs are known here.

33. With indifference. There is no pronounced opinion. It is, however, supposed to induce idleness.

There is no custom of worshipping the ganja *plant*. But it is offered to dead relatives who used it in their lifetime, at the time of death anniversary ceremonies by Musalmans and Marathas.

34. Only to bairagis, fakirs and wandering mendicants, and the few habitual consumers of all classes. There are only about 200 maunds of 80 seers of 40 tolas each used = 16,000lb per annum. The excessive consumers would take about 9lb each per annum and the moderate 1lb 8 *oz.* The total population is 1,013,000 in the Belgaum district, giving an average of 1lb to every 63 persons per annum. As only 16,000lb in all are consumed, there could at most be only 1,600 persons if *all* were immoderate users, and about 12,000 if *all* were moderate consumers. I estimate the immoderate at 300 and the habitual moderate at about 8,000 at the outside. The farmer estimates his customers at from 1,000 to 1,200 in Belgaum town, which contains the largest number of consumers. There are 27 minor shops in other parts of the district.

35. It would not be feasible, because where the plant grows people can pick it for themselves and make the preparation for themselves.

36. No.

37. Not smoked here.

38. Only flat ganja is used here. The effect of others not known.

39. It is supposed that the drink is less injurious than the drug smoked, because of the greater admixture of harmless ingredients.

40. Sometimes prescribed in the form of ganja for wind in the stomach and stomach-ache.

41. (*a*) Said to be a digestive.

(*b*) Also to give staying-power and lessen the effect of exposure.

(*c*) Not known here.

(*d*) Checks diarrhœa and relieves pain.

All classes in small numbers, but principally travellers.

42. The moderate use appears to have no evil effects. The Civil Surgeon of Belgaum states that no insanes have come under his notice whose insanity was due to ganja; nor have any cases of violence or crime come under his notice due to this cause. I also as a Magistrate have never observed any cases of crime due to ganja.

43. Yes.

44. Refreshing, and incites appetite and quiets the mind. The moderate use does not intoxicate, but induces a slightly giddy feeling. The effect of smoking lasts for two or three hours. Hunger is said to be an after-effect. A longing for further gratification is felt.

46. The Civil Surgeon knows of no insanes due to this, and states, "the moderate consumption would appear to be harmless." I know of no cases of insanity induced by ganja consumption, and never saw one.

46. Excesive use is *said* to produce insanity, but I never saw a case. I have never seen a case of any harm arising from the use of ganja.

47 and 48. No; the habit is purely personal.

49 and 50. Nothing is known as to this.

51 and 52. The District Superintendent of Police states that though bad characters occasionally consume the drug, the use of it is not general.

53. Not known. No such case has come under my notice during 24 years as a Magistrate.

54. No case known in this district.

55. No cases known, though the use is occasionally suspected. Majum is said so to be given in order to allow of rape and theft on women.

56. Dhatura is not known to be used here. Only tobacco is used to mix with ganja whether by moderate or excessive smokers.

57. Not known here.

58. Yes. No change necessary.

59. None necessary in this district.

60. No control is necessary in Belgaum.

61. None.

62, 63 and 64. No.

65. The import fee is 8 annas per Indian maund and bid in auction for the license R3,935 for last year. Ganja only is imported. No change seems necessary. If fees were raised, the contractor would bid less in the auction.

66. There is only one kind imported here, *viz.*, flat ganja.

67. No.

68. There are no shops where the drugs may be consumed on the premises. I see no harm in allowing such consumption.

69. A shop is not opened unless a considerable number of inhabitants of a village wish it, or do not object.

70. Nothing known.

---

8. *Evidence of* Mr. F. S. P. Lely, *Collector of Surat.*

19. Charas is not at all used in Surat district. Ganja is also pounded along with bhang, pepper and poppy seed. After being mixed with water the whole is filtered through cloth and then drunk by about 200 Borahs and other Muhammadans in Surat city, and sometimes by ascetics. It accelerates intoxication as compared with ordinary bhang water, and also mitigates the chilling effect of bhang.

20. Fakirs, sadhus and such like religious ascetics lead the way. In Surat city about 200 Borahs and 1,000 other Muhammadans smoke. Next come about 500 goldsmiths (Sonis), and 200 masons (Kadias). Then about 500 Jains. Then about 100 weavers (Khatris). The rest, about 400, are Kanbis, Wanias, Ghanchis, Brahmins, Dheds.

The above are for Surat city. Elsewhere we note Wanjaras from the Ghâts, and Brahmins occupy a higher place.

The monthly licit sale of ganja in all the shops of the Surat district is 623½ local seers (37½ tolas) for 650,000 people.

21. Only flat is used in Surat district, not round. It is preferred to chur or kani, as it is called here. The gardo or ganja dust, which is said to be used in Bombay and elsewhere pounded with bhang, is not at all used here, and is therefore destroyed by the local farmer.

22. Not used at all in Surat.

23. Bhang is never used for smoking in Surat district.

24. Bhang is chiefly drunk by goldsmiths (Sonis), Jains, Brahmins. Also by a few Muhammadans, and men of other Hindu castes. Bhang water is generally preferred, but it is also eaten in the form of bhang bukni by some Hindus. Bhang bukni is made by frying bhang with ghi and then adding sugar. Majum pak is sold in shops. To prepare it, bhang is soaked in water for a whole day and then boiled for about a couple of hours. Ghi is then added, and the mixture again boiled for several hours. Spices and sugar are also boiled in, and the preparation allowed to cool, when it congeals and is cut up into small cakes. The monthly licit sale of bhang in the shops of Surat district is 226½ local seers (37½ tolas) for 650,000 people, and of majum pak 34¼ seers.

25. The general opinion is that it is not on the increase. The licit sales have lately somewhat increased in this district owing to the introduction of restrictive measures in the Baroda State in 1892. Before that year there were none whatever.

26. The great majority of consumers of both ganja and bhang are habitual, three-fourths are habitual moderate, and quarter habitual excessive.

Occasional consumers are of bhang only, and they are rare.

27. Fakirs and other ascetics are the chief habitual excessives in ganja. They take it because it enables them to bear abstinence from food and water and even clothes in the coldest weather. It is said to enable them to resist the most malarious climate and the worst water. Muhammadans and many castes of Hindus are led to ganja or bhang by having to abstain from alcohol from religious scruples. Artizans and others

believe that their usual drink of bhang water sharpens their faculties and enables them to work better. Lastly, many resort to ganja smoking as a cure for rheumatism, indigestion, and certain other chronic diseases, and also to allay mental depression. More than one-half of the consumers belong to the poorer classes.

28. *Ganja*—

Habitual moderates, ½ tola, costing ½ anna.

Habitual excessives, 2 tolas, costing 1 anna.

Bhang—

Habitual moderates, 1 tola, costing 2 pies.

Habitual excessives, 4 tolas, costing 8 pies.

Some ascetics consume as much as 5 tolas of ganja per diem.

29. Tobacco is invariably mixed with ganja to mitigate the bad odour of the latter. The ingredients ordinarily added to bhang water are pepper and poppy seed to make it more digestible. Occasionally sugar, milk, almonds, cardamoms and other spices are also added to bhang water to make it less intoxicating and also more palatable. Dhatura is not known to be used. No other preparation is sold for mixing in this district.

30. Women are scarcely known to consume either drug; but five to ten Hindu women in Surat City are known to. Children do not, as a rule, take them; but some parents sometimes give a little bhang water to make them sleep.

31. The habit is easily formed in a few days. It is very difficult to leave off ganja; not so difficult to leave off bhang. No doubt there is a tendency towards excess, specially in early life. But many instances met by me seem to prove that there is also a tendency to decrease the amount consumed as age advances. A highly respectable Brahmin assures me that he formerly smoked 3 tolas a day; but now that he is getting old, only one tola. Another man says that he used to smoke 20 pipes per day, but gave it up on account of the intolerable asthma it gave him. A third has smoked one pice worth a day without increase or decrease for the last seven years. A fourth, who has smoked 30 years, now only consumes one pice worth against two pice worth formerly.

32. Bhang is sacred to Shiva and is called the batti of Shiva. On Shivratri it is necessary for his worshippers to offer bhang to Mahadev. On Limochhav or Gorepadoa day many Hindus drink the juice of the leaves of the *nim* tree grounded with bhang and water. This use of the drug is temperate and not likely to lead to the formation of the habit.

33. Among respectable persons the consumption of the drugs, especially of ganja, is undoubtedly held in some disrepute. In the case of Muhammadans this is strengthened by religious feeling, and they use the drugs secretly. The feeling of the rest of the community is based, I apprehend, on disapproval of intoxicants generally. It is not very strong. There is no custom of worshipping the hemp plant in this district.

34. It would be most reckless and unwise to think of such a thing. All habitual consumers would suffer for some time from want of sleep, loss of appetite, griping and indigestion. Most of them belong to the most ignorant and fanatical classes in the country, and would bitterly resent being deprived of a protective against all their bodily ills.

3. It would be wantonly causing the most serious discontent. As to the last question, I can only say I have met one or two cases where a ganja smoker has given up the habit and taken to opium.

36. I do not think so.

37. No charas in this district.

38. No round ganja is consumed in this district. The effect of chur or kani is generally the same as that of unbroken ganja; but it is held to be more injurious if it is much broken.

40. They are prescribed by native doctors for venereal diseases, etc. Bhang and ganja are said to be used sometimes for cattle diseases. Bhang is given to horses along with other spices, and often to cows and buffaloes to make them yield more milk.

41. Ganja is believed to assist digestion, also bhang. Both give staying-power, etc., and whet the faculties. They are not much believed in as febrifuge. They assuage rheumatic and other pains and mental distress. But great stress is laid on not consuming them with an empty stomach and on the accompaniment of a full and generous diet, such as ghi, wheat, milk and sugar.

Many of the moderate consumers (*vide* answers 20 and 27).

42. Some of the healthiest looking men in the district are moderate consumers. A robust-looking active man of 50 was talking to me yesterday who had smoked ganja for 30 years.

43. Quite so.

44. Bhang is refreshing. It produces intoxication more or less according to the habits of the consumer. It creates a ravenous appetite. During the period of elation, which lasts about four hours, the man goes about his business with heightened faculties. The effect of ganja is similar.

45. The habitual moderate use of bhang and ganja is not believed to be injurious, as a rule, if accompanied by sufficient nourishing food. I have met several habitual consumers, who are none the worse for it. On the other hand, ganja has induced asthma in some. Without good food it causes also loss of appetite and indigestion.

I have not myself come across any cases of consequent insanity.

46. Excessive use of ganja is believed to cause asthma and indigestion in a more marked degree, also consumption and impotence. The excessive use of bhang is believed to cause rheumatism and indigestion.

47 and 48. No.

49. As already stated, an excessive use of ganja, without good and sufficient food, tends to cause impotence.

51. No significant proportion of bad characters. No special connection with crime has been noted.

62. The present control is quite sufficient. An addition might be made to Government Notification No. 4421 of 23rd August 1880, requiring the cultivator to keep an account of his production and sales. The orders above referred to have already had an effect in restricting the production of bhang in this district.

68. There are only three such shops in Surat City. They undoubtedly make the consumption of bhang more easy, because the consumer is saved the trouble of preparing his bhang water. It has yet to be seen whether the experiment of closing similar opium shops is successful or not.

I am inclined to think it will only lead to the formation of clubs, which will have the disadvantage of less publicity.

69. No objection has ever been taken in this district to a ganja-bhang shop. If one was made, it would be attended to; but there is not the same feeling as there is against liquor or toddy-shops.

70. Large quantities of the drug were smuggled in small parcels from the Baroda territory in former times; but since February 1892, when the sale was brought under control and a farming system introduced by His Highness the Gaekwar, smuggling has almost ceased.

Oral evidence.

Question 32.—I hand in some translations of popular sayings on the subject of bhang collected from a company of sadhus.

Question 59.—I should say that bhang was generally harmless—quite as harmless as the English glass of sherry. The vast majority of consumers are quite moderate. In my own office, which represents in many senses the best class of native society, there is perhaps not one who does not occasionally take bhang in social entertainments. I refer especially to the followers of Shiva. I have noticed no ill-effects among them, and they themselves say that the occasional dose does not produce any effect at all. There are also a certain number of habitual consumers and a few who exceed; but the vast majority are occasional consumers; and of the habitual consumers the majority certainly do not exceed. According to my information, the habit of drinking bhang is not very quickly acquired. In this bhang differs from ganja smoking. It would therefore take long for a consumer of bhang to reach this degraded condition. I do not, however, pretend to accurate knowledge on the subject. I am not prepared to say that I have myself observed people to have been reduced to such a degraded condition by bhang as by the use of ganja. I have made enquiries during my tours, and people have admitted to me that they took bhang, and their physical condition appeared to me, as a general rule, to be quite satisfactory. I do not mean to say that the drinking of bhang is confined to the Shivaites. The majority of Vaishnavites do not take it; and these form the mass of the non-Shivaite agricultural population of my district. Some Musalmans do take bhang; but not, I think, the Parsis. The Musalmans reprobate the practice. The number of victims to ganja smoking certainly appears larger than the number who injure themselves by the use of bhang. But this, I think, may be explained in some degree by the fact that there is more disrepute attaching to the moderate use of ganja than to the moderate use of bhang, and so long as a man indulges moderately in ganja, he can keep it secret and has an object in doing so; but when his constitution is ruined, he cannot keep the secret any longer and abandons all restraint. Besides, there is no doubt that the smoking of ganja is much less prevalent among the respectable classes than the use of bhang. The use of ganja is for the most part, though by no means entirely, confined to religious ascetics. The effects of ganja have not come to my notice in my magisterial capacity, at least in the Surat district. One hears far more of alcohol or toddy. My knowledge is derived from information rather than ocular demonstration. In every taluka town the mamlatdar can bring up, and has sometimes brought up, perhaps half a dozen social wrecks, said by him to have been ruined by ganja. The persons themselves invariably admit the ganja habit; but they attribute their condition also to the want of sufficiently nourishing food in the form of milk and ghi. On the other hand, there are always to be found some well-nourished individuals who have used ganja all their adult lives and appear to be none the worse for it. Practically, I should not have any hesitation in accepting the view that the condition of the persons I have mentioned was due to the causes alleged by them. I could not answer for isolated cases. I have said that each mamlatdar could produce five or six such cases. The average population of a mamlatdar head-quarter town would be 3,000 or 4,000. I have called upon the mamlatdar to produce the ganja smokers more frequently in the last month or two than previously; but the subject has always attracted my attention more or less, and I have occasionally done this in past years. I cannot definitely remember to have called upon the mamlatdar to produce the social wrecks from opium or liquor. In regard to liquor, a large part of the population of some towns get drunk when they get the chance; but the effects of alcohol on the constitution do not seem to be so permanent or so radical as those of ganja. Regarding the ganjeris, I have not instituted enquiries into their habits with the view of ascertaining whether they used alcohol or other drugs, because their statement and those of the mamlatdars and others that they used ganja appeared to render it unnecessary. It is very probable that if more strict enquiry had been made, the mamlatdar would have been able to produce even a larger number of persons than I have mentioned as victims of the ganja habit, because it is very unlikely that at a day's notice every one would be able or willing to come. I have occasionally given the order a day beforehand—always verbally. I have taken far more interest in regard to alcohol than in regard to ganja; and if I were to refer to my note books, I could probably call to mind many more cases bearing upon the effects of alcohol than upon those of the hemp drug. My information regarding the latter has been furbished up and added to in consequence of the present enquiry. The alcohol-consuming population of the Surat district, which is the one with which I am best acquainted, is quite distinct from the ganja-consuming population; and, moreover, I do not know so much about the population that consumes ganja immoderately as about the liquor drinkers, and therefore I find it difficult to make a general comparison between the effects of the two habits. Alcohol is consumed by a vigorous population, who live a healthy, open-air life, and the injurious effects upon them of frequently getting drunk are therefore little or nothing. With regard to ganja, one knows little of the religious ascetics who are the chief consumers; and I am not prepared to say whether it is more or less injurious than alcohol. I speak of alcohol in the form of toddy, which I think is much more wholesome than distilled liquor. Fully fermented toddy is about as strong as London stout, as shown by experiments made a few years ago. I think increased taxation of ganja would be highly impolitic. I can hardly see how, apart from political reasons, it could be beneficial. The consumer would be prepared to spend a pice or two more upon it. It is much cheaper to get intoxicated on ganja than on liquor. I do not recommend increasing the cost of the former, because the people who use it are poorer than those who drink liquor. I never

remember seeing a person intoxicated by ganja. I only know ganja intoxication by description, and it has been described to me as not dissimilar to that caused by alcohol. I have seen a great many cases of drunkenness from toddy. It must, I suppose, injure a person to get intoxicated from alcohol in any form. I do not know of any adulteration of the drugs. There does not appear to me to be any necessity for Government to take measures to prevent adulteration. I think 40 tolas is an unnecessarily high maximum for legal possession of ganja. I think five would be rather too low, owing to the shops being scattered; but it would be sufficient in average cases.

Question 68.—I think there is no prohibition against consumption of bhang or ganja in the premises in the shops of Surat. The shops are not a nuisance, and the fact that smoking is there done in public would be rather deterrent than otherwise.

---

9. *Evidence of* Mr. J. M. Campbell, C.I.E., *Collector of Land Revenue and Customs and Opium, Bombay.*

Oral evidence.

I have twenty-four years' service in all divisions of the presidency (except Sind).

I do not think the hemp drugs are used to any great extent. I find the actual consumption to be about 8·6 seers per thousand of population, and there is no smuggling in Bombay; so that this means less than it would mean in other provinces where there is smuggling. Dharwar is the only district where there is marked increase, and this is accompanied by decrease in liquor consumption. There liquor seems to be displaced by drugs; but this is not the case elsewhere in the province.

I do not think that the drugs do any appreciable harm to the people. I think there has been an impression in the province that there is harm done by these drugs, and that they are not a good source of revenue. There is an idea that nothing should be done to stimulate consumption. No doubt to aim at revenue only might stimulate consumption. But on the one hand, the impression regarding the ill-effects of the drugs is not so strong as it was. When one is not giving attention to the subject, the only thing one notices is the excessive use. The moderate use does not obtrude itself on notice. When one sees more of the subject, the effects are found to be generally less hurtful. Then, on the other hand, to take up the drugs more carefully and aim at control and to raise taxation could not itself tend to increase consumption. But a high taxation might lead to smuggling and other illicit practices. This would not, however, lead to increased consumption. There would be special danger of smuggling from Native States outside the province, such as Indore on the one side and Hyderabad on the other. I do not think that taxation could be considerably raised without coming to some arrangements with Native States within and without the province. Some such arrangements might be made with the Native States within the presidency as have been made in respect to opium; and I think the compensation payable would be small, and that the Native States would have no objection.

I am not of opinion that the effects of the drugs are such as to justify prohibition nor any stringent restriction. I think the producers in Ahmednagar and Satara would resent very much any restriction of cultivation. I think that the prohibition of cultivation in those districts where it is trifling, so as to confine it to the two districts above named, might cause some little dissatisfaction, but would be feasible. It could be done. The system of restricted cultivation and bonded warehouses, however introduces so many complications, as compared with the present system, that it would require careful consideration. I think a ₹10 (ten-rupee) transport fee per maund could be levied without any change of system, and the present system could not work well with a higher fee. Something like the Central Provinces system might be required. I do not recommend this at present in the Deccan. The rise in price by a tax of, say, ₹2 (two rupees) per seer, as in the Central Provinces, would be very much felt, and would cause more discontent than would be worth while exciting for the small increase of revenue that would result. If there were a large increase of revenue it might be different. As it is, I do not, as at present advised, recommend such a change as far as the interests of Bombay are concerned. I admit, however, that if the question were regarded as part of a general system of excise, there might be other grounds for taking action towards equalizing taxation. Smuggling from Bombay to the Central Provinces must be encouraged by the difference in rates. I think also, perhaps, that the heavy general excise taxation in Bombay—the high revenue realised from excise as compared with other provinces—would be an argument against increasing taxation on any special intoxicant, such as hemp drugs. I believe that the two habits, liquor and drugs, are practically quite distinct. If they were fully distinct, then there would be little force in the last argument I have referred to. Another objection to high taxation of drugs is that Hindus and some Muhammadans might object to it owing to the increased price of drugs being an inducement to take to liquor, which their religion condemns. In view of all the circumstances of the case, I would not impose on the drug more than a transport tax of ₹10 a maund under existing circumstances.

I think that the object of Government in taxation of the drugs should be the greatest revenue with the least possible consumption, that is, I think the drug is sufficiently harmful to make it a proper thing to seek to keep the consumption low. I think that the natural demand must be met to prevent smuggling and such practices; but the Government should seek to keep the facilities for supply as low as possible. I do not think the present demand is too great. I would therefore rather aim at not increasing it than at cutting down the existing sources or facilities for supply and reducing consumption. The latter would unnecessarily cause discontent, and be unadvisable. I would aim at getting as much revenue as possible without increasing the existing demand and consumption, and without interfering with it.

As to the maximum of possession, I think that

forty tolas is too high, and I would reduce that to five tolas.

I think it is a good thing to have some shops in Bombay city, where the drugs are consumed on the premises. It keeps the consumers under notice. The shops are bound to close at a certain hour, and the consumers to behave in an orderly manner. This tends to regulate the practice, and control the habits of consumers. The closing of the chandu and madak shops is said to have really increased the number from 14 shops to about 150 clubs. The latter are not open to inspection or visit by the authorities. As a matter of fact, too, consumption of ganja within licensed shops is really small, and shows no serious evil.

In statement K on page 16 of my memorandum the exports are of Bombay ganja, *i.e.*, of ganja produced in the Bombay presidency. "Foreign Indian Ports" are mainly ports in Kathiawar. I believe that all the ganja exported is grown in the province. There was export ascribed to the Central Provinces; but this was found to be a mistake. The ganja exported has paid the transport duty on removal from the districts in which it is grown.

I believe that in ordinary magisterial work there is no connection between hemp drugs and crime. But there are certain crimes—murders and crimes of violence—ascribed to ganja; and there are also certain statements regarding the use of the drugs by Rajputs that point to its leading to violence. I have never sifted these statements; nor have such facts come to my notice. On the other hand, I have been told that the drugs make a man timid. It is otherwise with alcohol. Among the Bhils, in the wild parts of Gujarat and in such districts as Thana, there are many crimes connected with alcohol.

Mr. Almon and I have talked over the question of the average dose on which the estimates of consumption in Bombay city should be based. We have also made further enquiries. We both think that half a tola would be nearer the true average than one tola. Mr. Almon would desire his evidence to be corrected on this point.

---

10. *Evidence of* Mr. J. Monteath, *Collector and District Magistrate, Bijapur.*

1. I had practically no opportunity of obtaining special information on the subject until I came to Bijapur a year ago, and my attention was not particularly attracted to it until orders for the supply of information to the Commission were issued.

2. The definitions given for ganja and bhang, which names are used, may be accepted for this district; but the term bhang is in some places applied to the powder left in the bag after ganja is handled and taken out. Charas is not known, and bhang is said to be used only for the preparation of the drink called "ghota." The sort of ganja sold here is flat ganja.

3. I know no district in which the hemp plant grows spontaneously.

7. The hemp plant has been cultivated in the town of Bijapur for some years past, and is at present being grown there and in Utnal in the Bagewadi taluka for the production of ganja and bhang. The areas sown have been—

	Acres.	Gunthas.
1888	0	33
1889	1	1
1890	0	20
1891	3	0
1892	13	0
1893	8	6

8. I infer from the larger sums paid for the right to sell the drug that consumption is increasing, but I can assign no special reason for this increase, except perhaps the increase of spare cash.

9. I can add nothing on this point to the description given by Rao Bahadur R. C. Artal in paragraph 3 of his letter printed as an appendix to the note of the Commissioner of Customs, Salt, Opium and Akbari, forwarded to Government with his letter No 4752, dated 11th September 1893. Rao Bahadur R. C. Artal serves in Bijapur.

10. The plant is cultivated on behalf of the contractor, a Marwari, under the supervision of experts who come from the Satara district. The operations common to the production of this and other plants are performed by cultivators belonging to the district.

11. Not here.

13 There is no restriction of area. It is stated in the Bombay Gazetteer (volume XXV, page 234) that the plant flourishes best at an elevation of 4,000 to 7,000 feet above the level of the sea. Rich friable moist loam is needed, and there must be no shade.

14. Ganja and bhang only are prepared in this district, and bhang to but a small extent. The ganja produced in 1892 is said to have been about 560 maunds.

15. I can give no information on this point in addition to what appears in Mr. Artal's report above mentioned.

16. Bhang is not prepared by the people in their houses.

17. Ganja is prepared only by the contractor. The only other preparation, so far as I can learn, used in the district is ghota, and it is made and drunk at festivals, particularly the Holi, by Marathas and the other Hindu lower castes; occasionally by some of the higher castes (not by Lengayets) and by Musalmans.

18. I am told that ganja and bhang deteriorate after two years, and that their use is then especially deleterious. I am not aware how deterioration can be prevented.

19. Ganja is used only for smoking. Charas is not used at all in this district.

20. So far as I can learn, the smoking of ganja is almost confined in this district to Muhammadans of the lower class, fakirs, Hindu ascetics and mendicants, weavers, and some domestic servants. The proportion of ganja smokers to the total population is exceedingly small. I imagine not so much as 1 per cent.

21. Flat ganja is used here.

22. None.

23. No.

24. So far as I can learn, bhang is hardly ever eaten here, and is drunk only in the form of ghota by the classes mentioned in the answer to question 17. I do not think the proportion of those who so use it exceeds 5 per cent.

25. As already stated, I infer from the higher sums paid for the right to sell the drug that the use of ganja is increasing, but I can assign no cause except a probable improvement in income. Mr. Artal states that the habit of smoking ganja is fostered by ascetics, and as they move about more rapidly now with the improved means of communication, the increase may be partly accounted for in this manner.

26. I can make only the roughest guesses at these proportions. Of the ganja consumers, I should think 10 per cent. are habitual excessive consumers, the rest being habitual moderate consumers, there being practically no occasional consumers at all of the drug in that form. Almost all the consumers of bhang in the form of ghota seem to be occasional moderate consumers.

27. I can give no information on this point in addition to what is stated above.

28. Ganja only habitually used—

Average allowance.	Average cost.
(*a*) 1 tola	½ anna.
(*b*) 4 tolas	2 annas.

I have been able to get no information direct from actual consumers, and the second-hand information I have got varies considerably.

29. I have no information on these points beyond what is in Mr. Artal's report above mentioned.

30. The consumption, I am informed, is generally in company, and, except as regards a few prostitutes, is confined to the male sex. Persons under 20 are seldom addicted to the drugs.

31. I am informed that the habit of smoking ganja is easily formed and is difficult to break off.

33. The occasional consumption of ghota at festivals is apparently not considered by any class of the community to be open to objection. The habitual use of ganja is considered discreditable, and I have not been able to find a single person who will admit he uses it. Even the persons engaged in the cultivation of the plant informed me that no consumer of ganja would confess that he consumes it. The cause of the shame is presumably that the habitual use of the drug is generally considered deleterious. The plant is not worshipped in this district.

34. As the habit of smoking ganja is difficult to break off, it would doubtless be a serious privation, though probably beneficial, to forego the use of the drug.

35. I do not think the use of the drugs could be effectually prohibited; certainly not unless cultivation was also stopped in Native States. The prohibition would create serious discontent, and as regards the occasional consumers of ghota would be a needless hardship. The discontent would scarcely amount to a political danger. A Government is not in my opinion justified in absolutely prohibiting the use of an article which in moderation gives pleasure and does little or no harm. What is legitimate is to check its use in excess, which is harmful, by making it expensive through the imposition of duty. I do not think the prohibition would necessarily be followed by recourse to alcoholic stimulants or other drugs; or, if it were, that that would be a serious objection, for the immoderate use of hemp seems to be worse than the immoderate use of the others.

36. I do not think so. If anything, the tendency is the other way.

37. My opinion on the points specified in this chapter would, of course, be of no value, but in case the Commission have not seen it, I would refer to an article on *Cannabis sativa* in Part VI of the Pharmacographia Indica, which probably contains the most authoritative exposition extant of the effects of the drug.

58 and 59. I think that the present system of excise administration in respect of hemp drugs has worked fairly well, but that the time has come for putting these drugs on the same footing as alcoholic stimulants and opium. Hitherto the consumption of preparations of hemp has not been extensive, and so long as it was very small, the farm of the right to sell, as dispensing with the need of any preventive establishment, was perhaps most suitable. But it seems that not only in this district, but throughout the presidency, the amounts bid for the right to sell have been increasing, and it may fairly be inferred that the habit of consuming these drugs is spreading. It cannot indeed be said yet to be prevalent; still the total consumption is, I think, sufficient to make it worth while to impose an excise duty; it is already in this district much in excess of the consumption of opium, though insignificant as compared with the consumption of alcoholic stimulants, particularly toddy. I use the expression "make it worth while," for in my opinion the question whether it is worth while is the only one which calls for consideration in this connection. It is, I believe, generally admitted that the system of deriving a revenue by farming the right to sell is suitable only in the earliest stage, and that the levy of an excise duty is the fairest and most satisfactory method of taxing an article produced in the country. Now the levy of an excise duty on preparations of hemp will present no difficulties in this presidency. The wild hemp does not grow, and the cultivation of the plant requires great attention, and cannot be carried on surreptitiously. The existing Abkari establishments would probably suffice for the levy of the duty, or at least would require strengthening to but a small extent. The article is too bulky to be easily smuggled, and the arrangement with various Native States as regards alcoholic liquor and opium could probably be easily extended to hemp intoxicants. The levy of an excise duty is of course a very different thing from total prohibition, and would not, I think, excite any opposition. The article already pays a duty through the incidence on the consumers of the amount paid for the farm, and is a very legitimate subject of revenue. An alteration in the form of the duty could not reasonably be objected to. The drugs would probably be a little dearer under an excise duty than they are now, but not so much so as to materially affect anybody—certainly not the occasional consumers, while the habitual consumers are ashamed of the habit, and are the less likely to make open opposition to a check on it.

The levy of an excise duty would, of course, have to be accompanied by an import duty on so much of the article as is imported from places outside British India, except such States as might give over to the Government the management of this as of other abkari revenue. The present duty on import, export, and transport is not, in my opinion, a very fair or satisfactory one. I apprehend it is intended rather to recoup the cost of controlling transport than to be a source of revenue. It does not, however, seem right that in a district in which the hemp plant is not grown the price should be increased by an import duty from which, or from anything corresponding with which, districts in

which the plant is grown to an extent sufficient to meet the local consumption are exempt. If the duty were charged only on importation from places outside British India, there would be less objection, for the several British districts would then be on the same footing as regards duty, whether the plant is cultivated in them or not. But the fairest method is to charge an excise duty on the article produced in British India, and a corresponding import duty on the article imported from places outside British India. In the first instance the rate of excise and import duty should be low, but not so low as the existing duty on transport, the incidence of which is under $\frac{1}{3\frac{1}{3}}$ of a *pie* per tola. Also the minimum amount of duty leviable should not be so much as at present. I should think that a rate of 8 annas per seer of ganja, which would be little more than a pie per tola, would be an exceedingly moderate rate with reference to the present duties on spirit and toddy. I do not know whether the strength of bhang differs from that of ganja so much as to require a separate rate. Of course charas would need a rate for itself.

I consider that it would probably be practicable and desirable to apply to ganja and bhang the system now in force in most districts with regard to toddy *mutatis mutandis*—that is, there should be a separate license for each shop, which, if there is only one applicant, should be given on payment of a fixed fee; if there are more, it should be sold by auction. All the ganja and bhang prepared should be kept in bonded warehouses or depôts, and sold thence only to persons who hold licenses for shops on payment of the duty. The licensee should have the option of supplying himself from any depôt in the presidency on payment of excise duty, or from places outside the presidency on payment of import duty, each consignment in either case, of course, being covered by a pass showing the payment of the duty.

It is, however, possible that the consumption is in some districts not sufficiently large to induce persons to apply for licenses for separate shops. In that case the right of sale throughout a district could continue to be given to one person—generally the person who offered the largest sum for the privilege—who would supply himself from a depôt or import on payment of excise or import duty as proposed in the case of the holders of licenses for separate shops.

60. There is at present no need for control.

61. Charas is not produced here.

62. The cultivation of the hemp plant for the production of bhang is not separate from its cultivation for the production of ganja.

63 and 64. See answer to questions 58 and 59.

65. There is at present in this province no taxation in the strict sense of the term on preparations of hemp except the duty on import, export, or transport, as regards which please see answers to questions 58 and 59.

66. I think not, but only one kind of ganja is used in this district.

67. See answer to questions 58 and 59.

68. No. I think consumption on the shop premises is as unobjectionable as consumption in the consumers' own houses.

69. Yes. The village officers are required to inquire and report whether the bulk of the people wish a shop or object to it, and in the latter case a shop is not allowed. I think it is reasonable that effect should be given to the wish of the majority in this matter.

70. I have reason to believe that although there is no, or practically no, smuggling, people who live on the borders of Native States get their supplies from shops in these States, where the article is said to be cheaper. This practice is possibly owing to the rule that any person may have in his possession without a license as much as 40 tolas. The limit should not, I think, be more than 5 tolas,—perhaps better, 2 tolas.

---

11. *Evidence of* Mr. H. Woodward, *Collector, Kaira, Gujarat.*

1. Only the general experience derived from eighteen years' actual service as a District Officer in many of the districts of this presidency, excluding Sind. My *special* attention has been drawn to the subject quite recently.

2. Yes; though the general notion is that bhang is produced from the female and ganja from the male plant only. I cannot discover that these products are known locally by any peculiar names.

3. None.

7. None; the fibrous hemp plant (*san*), so-called, is altogether different from ganja, and has no intoxicating qualities.

14. No, they are all imported.

19. Only for smoking in the Kaira district. Charas is not imported for sale here at all, and its use is extremely limited.

20. The practice of smoking ganja is general among all the lower and poorer classes, fakirs, bairagis, sadhus, and other ascetics being specially addicted to it.

21. Flat ganja alone is used in this district.

23. Never, so far as I can ascertain.

24. Bhang is drunk by all classes of the population in a less or greater degree, specially in the hot season. It has refreshing and stimulating properties, and is imbibed at convivial meetings, as Europeans use tea, by the well-to-do classes.

25. There are very few shops in this district, and the consumption seems to be decidedly on the decrease owing to the prevailing and spreading taste for the cheaper forms of alcohol. This remark is applicable to bhang drinkers and ganja smokers.

26. Roughly out of 100 consumers,—

(*a*)	80
(*b*)	5
(*c*)	10
(*d*)	5
	100

For bhang and ganja (not charas).

27. From all classes. From the Brahmin and well-fed bania to the Dharala and emaciated ascetic, as well as Muhammadans. The people of a country like India must have stimulants. The form of the stimulant chosen will depend on a variety of circumstances, not the least important

being the means of the consumer. Physical aches and pains, mental depression, general joylessness of life among the more indigent classes, the force of bad example, are all incentives to get temporary rest and oblivion.

28. (*a*) About ½ tola, costing ¼ anna.

(*b*) Double or treble that quantity.

29. Tobacco is generally mixed with ganja to improve the flavour. Pepper, poppy-seed, almonds, cardamoms, and sometimes sugar and milk, are mixed with bhang-water according to fancy and taste, and with the object of rendering it more palatable and warmer to the stomach. I am told that dhatura is occasionally mixed with charas to enhance its inebriating powers.

30. Bhang and ganja are usually taken in company, though some incorrigibles prefer ganja smoking by themselves. The habit is mainly confined to the male sex, who contract it at any time of life. Children seldom consume any of these drugs, though they may be allowed a sip of bhang-water as ours are of wine as a treat on special occasions.

31. Not more so than in the case of alcohol-drinkers in respect to bhang. Much more frequently the ganja smoker becomes a slave to the habit and falls into excess.

32. I understand that Shiva or Mahadev is regarded by Hindus as the special patron of bhang, and that it is always imbibed on his sacred days and festivals. I have not heard that orgies are indulged in on these occasions; and, as they are infrequent, I do not think they are likely to have any effect in forming habits.

33. Ganja smoking is regarded among all classes as a degrading and disgraceful habit. This feeling is due partly to the classes of people who consume it owing to its cheapness, and partly to the baneful effects which result from its excessive use. No such stigma applies to the taking of bhang. The hemp plant is not an object of worship to my knowledge.

34. I am of opinion that it would for obvious reasons. In this district I do not think more than 5 per cent. of the population would be affected.

35. Absolute prohibition would certainly entail smuggling, which could not be stopped. The discontent would be sore among the classes affected, but not such as to amount to a political danger.

I don't believe in the possibility of absolute effective prohibition of the use of ganja and bhang; but if it could be, alcohol, I believe, would be the substitute. The *remaining* alternative, opium, operates as a sedative, and could hardly be a fit substitute for hemp drugs, which are excitant and irritant in their nature.

36. See answer to question No. 25.

37. Only that they are much more rapid and far more powerful.

39. I should say that ganja and charas smoking with or without admixture are much more injurious than bhang-drinking. I know of no edible preparation made from the hemp plants.

40. Taken on a full stomach, bhang and ganja are esteemed to be good for digestion and as appetisers to brace the nerves and sharpen the intellect. Bhang is used in cases of rheumatism and fever. I do not know that they are used in cases of cattle disease, though bhang is given to cattle to increase their supply of milk.

41. See above.

42. No decided answer can be given. The effects depend upon the temperament of the taker, the quantity in which and the times when the stimulant is taken. Generally it may be said that, like smoking tobacco or drinking alcohol, it is comparatively harmless if taken with care, moderation, and due consideration of the consumer's constitutional peculiarities. No hard-and-fast rule can be laid down.

43. Quite so.

46. The excessive ganja smoker may be detected by his emaciated body, his dull lustreless eye, his listlessness and feebleness. He becomes after a few years enfeebled in body and mind, and even a worse wreck than the victim of alcohol. Appetite goes, and at last the maddening fumes become his sole resort for temporary relief and oblivion.

47. No.

49. Not to my knowledge, though it is not doubtful that excessive ganja smoking will in time affect the virile powers.

51. None whatever.

53. Men, no doubt, become highly excited and lose their mental balance by excessive indulgence. It was commonly reported that the man who attacked and was shot by Mr. W. Woodward, Collector of Nasik, some years ago, was frenzied by the use of hemp drugs.

54. I know of no such cases; but it is said that persons about to run "amuck" do so to fortify themselves to get the steam up.

55. I have never heard of bhang or ganja being so used without the admixture of dhatura or some other potent drug.

58. I consider the system is as simple and effectual as it can well be, and I know of no measures which can be suggested for its improvement.

59. I think, perhaps that the maximum quantity allowed to be in any one's possession (40 tolas) is too high, and its reduction to one-fourth that amount would not be considered a hardship.

63 and 64. None.

68. No.

69. The consumption is so insignificant in this district that local option has seldom to be taken into consideration. As Collector of the district, however, I should ascertain the wishes of the people before establishing a new shop in any locality.

70. I should say that smuggling was rare and that the tax is usually paid.

12. *Evidence of* Mr. A. Cumine, *Acting Collector, Dhulia, Khandesh.*

1. Personally I have not had any, being a newcomer to the district. The Commission having desired that I should direct my attention specially to the question of to what extent, if any, the wild tribes of Khandesh are concerned in this matter, my answers refer to them alone. It will be seen that they are very little concerned indeed. My information has been obtained from mamlatdars, as I could not make personal enquiries in the short time allowed me.

2. Information for the district of Khandesh in general will be given by Rao Bahadur Sitaram Damodhar.

3. In the tracts inhabited by wild tribes the hemp plant does not, so far as I know, grow spontaneously at all.

7. In the tracts inhabited by the wild tribes there is no cultivation of the hemp plant at all.

13. No.

14. None are prepared in the tracts in which the wild tribes live.

The wild tribes to whom the following answers refer are—

(1) The Bhils—not the Bhils of the plains, as they are hardly wild tribes now, but the Bhils along the base of the Satpuras in Shahada and Chopda talukas. (2) The Tadvis of Savda taluka. (3) The Maochis of the Nawapur Peta. (4) The Pawras of the Taloda taluka. (5) The Konkanas of the Pimpalner taluka.

19. Charas is not used at all. The Pawras do not use ganja at all. Such of the others as use ganja use it only for smoking.

20. There cannot be said to be different classes amongst these people.

Charas is not smoked at all. The proportion of ganja smokers is perhaps as follows: —

Amongst Bhils, about 4 per cent.: amongst Tadvis, about 2 or 3 per cent.: amongst Maochis, $\frac{1}{10}$th per cent.: amongst Pawras, 0 per cent.: amongst Konkanas, about 2 per cent.

21. The Bhils in Shahada are said to prefer the round; in Chopda the flat. The Tadvis the round. The Maochis apparently no preference. The Pawras do not use any. The Konkanas can get only the flat; their preference is not known.

22. None.

23. No.

24. None.

25. Bhang and charas are not used at all. None of my informants says that the use of ganja is increasing. There is not enough evidence to say that it is decreasing.

26. None are excessive consumers. The Pawras are not consumers at all. Of the Chopda Bhils, all the consumers are probably habitual moderate. Of the Shahada Bhils apparently about one-fourth of the consumers are habitual moderate, and the rest occasional moderate. Of the Tadvis, all the consumers are probably habitual moderate. Of the Maochis, all the consumers are said to be occasional moderate. Of the Konkanas, all habitual moderate.

27. There cannot be said to be different classes or different habits of life or circumstances amongst these wild tribes, I think.

28. For habitual moderate consumers the average allowance per diem seems to be about half a tola amongst Bhils and Tadvis. Half an anna's worth is said to last a Konkana a week. For Maochis no information can be given. Pawras do not use any.

29. The Maochis are said not to mix anything with their ganja. The Bhils, Tadvis, and Konkanas ordinarily mix tobacco with their ganja: they say it increases the effect and improves the taste. The Chopda Bhils add that it prevents the ganja injuring the lungs. Nothing is exceptionally mixed with the ganja. Dhatura is not so mixed. I do not know of any preparation sold to mix with ganja.

30. Ganja is apparently smoked in solitude, but there does not seem to be any concealment in it. Neither women nor children smoke it.

32. There are no such customs.

33. I don't think it can be said that there is any public opinion on the point. There is no hemp plant in those parts, and no custom of worshipping it.

35. As the tracts inhabited by these tribes march with Native States, I think it would be very difficult to enforce any prohibition of the use of ganja. The prohibition would, I think, occasion serious discontent among the consumers: all the more so because they would feel that it is totally uncalled for. But the consumers are far too few for their discontent to amount to a political danger. The consumers probably are, like the other members of the wild tribes, hard drinkers already.

36. There is not, I think, any reason for thinking alcohol is being substituted for ganja. The wild tribes have always been very fond of drink.

---

13. *Evidence of* Mr. W. W. Drew, *Acting Collector, Ratnagiri.*

1. I have consulted all the medical officers in charge of dispensaries and the subordinates of the Abkari Department, after instructing them to find out through the shopkeepers their principal customers, and obtain all the information possible from them. The information relates to the Ratnagiri district only.

3. There is no cultivation in this district.

14. There is no manufacture in this district.

19. Ganja is taken in the form of a drink called "ghota." It is taken as a remedy against dysentery by people of all sorts in the form of pills mixed with sugar.

20. My subordinates report a total of about 8,000 out of 1,106,000, or 0·72 per cent. Besides bairagis and such like, the remaining consumers are drawn from all classes.

21. I can give no information on this point.

22. Charas is not used in the district.

23. Bhang is not used in the district.

25. The use of ganja is largely on the increase, judging from the increase in the amount imported under passes, which is the only licit means of obtaining it.

26. I can give no idea of these proportions.

27. Bad company and bowel complaints are said universally to be the two causes which lead persons to acquire the habit.

28. (*a*) For moderate consumers I would fix the maximum limit at ½ tola a day, costing 3 pies. I would put $\frac{1}{16}$ as the average, costing ¾ pie.

(*b*) Two tolas a day, price one anna, as the average.

29. Sugar, jagri, tobacco, milk, poppy-heads and spices, according to the means of the consumer.

30. It is much more usual to take it in company than alone. Women and children never take it otherwise than as medicine, except prostitutes.

31. It is extremely difficult to break off the habit, and it cannot be done suddenly.

32. There are no social or religious customs requiring the use of the drug.

33. It is generally considered disreputable to use the drug otherwise than as medicine.

34. The general opinion is that the practice cannot be suddenly stopped without danger to the life or person of an habitual consumer.

35. The consumers would attempt to import it ilicitly. Opium, or perhaps liquor, might be used by some in its place.

36. No.

37. Charas is not used here.

38. Only one sort is used here.

39. Opinions differ altogether on this.

40. It is prescribed for diarrhœa and dysentery and for diarrhœa in cattle too.

41. (*a*) Yes.

(*b*) Yes.

(*c*) No.

(*d*) It is used occasionally as an aphrodisiac, but its habitual use tends to cause impotency.

42. Beneficial.

43. Yes.

44. To produce cheerfulness. It is refreshing. Does not produce intoxication. Allays hunger. It produces a craving for more in a short time after.

45. (*a*) *to* (*e*) No.

(*f*) Not where the consumer takes a proper amount of food. For poorly nourished people it may lead to weakness of intellect and insanity.

46. Excessive use impairs the constitution, causes loss of appetite, and tends to insanity.

47. No.

48. I cannot say.

49. It is used, by males only, as an aphrodisiac. It tends to produce impotence if used habitually.

50. It is not used habitually as an aphrodisiac.

51 and 52. No, not as far as the public are concerned.

53. I have heard of one such case.

54. There is no evidence to this effect that I have been able to obtain.

55. It is said that majum and dhatura are required to produce stupefaction sufficient for such purposes. I have heard of no crimes perpetrated by these means.

---

14. *Evidence of* Mr. R. A. Lamb, *Acting Collector, Kolaba.*

1. Assistant Collector from 1879 to 1887; Acting Collector, 1892-93.

2. Not known in this district. The definition of ganja is correct. Only one variety is sold here with no distinctive name; just ganja. It looks like what Dr. Prain describes as round ganja. Broken fragments are sold with the rest; only minute fragments or dust (chur) are either destroyed or else sold at a very reduced price (10 or 12 tolas per anna instead of 2 tolas per anna) to persons, especially Marwadis, for drinking purposes.

3. The plant does not grow here spontaneously or otherwise.

14. As regards this district, no.

18. Ganja does deteriorate and quite loses its effect in time. It keeps good a year. Deterioration is due to natural causes. No special measures can be taken to prevent deterioration.

19. All statements here apply to *ganja only*, charas and bhang being unknown in this district.

Ganja is used (*a*) for smoking, and to an extremely limited extent for (*b*) eating (*c*), drinking. For eating it is made up with a variety of other substances, sugar, almonds, poppy-seeds, saffron, etc., in proportions according to taste in the form of sweetmeats. For drinking it is broken up by rolling between the open palms with a little water, and then mixed with water or milk in proportion according to taste. These uses prevail in all parts of the district where ganja is in use, but to a much less extent than smoking.

20. Individuals of all classes, except the depressed classes (Kolis, Mahars, &c.), and wild tribes (Thakurs, Katkaris, etc.) use ganja. Regular consumers, principally Pandharpeshas and Muhammadans in this district, amount to about 500 only, and in Janjira State about 375. These are scattered through the district. The populations are—Kolaba, 594,872; Janjira, 81,780.

21. Only ganja (semble, round ganja) is used for smoking.

22. None.

23. No.

24. None.

25. The figures available do not indicate any considerable general increase or decrease, nor does local information indicate any. The shopkeeper at Nagotna says consumption there is now about double what it was ten years ago; but it is small—smaller than in any other part of the district.

26. In Kolaba and Janjira there are 800 to 900 habitual moderate consumers. There may be from double to treble that number of occasional moderate consumers; but this is guess work. As to excessive consumers, I can hardly even give a guess. I should say (*b*) habitual excessives were

a negligible quantity, and (*d*) occasional excessives not 1 in 10,000 of the population.

27. The well or fairly well-to-do supply the majority of (*a*). Many of them, especially Marwadis, like ganja as a drink in hot weather; many I have no doubt take it as an aphrodisiac. A habitual moderate consumer told me he was much given to going to pilgrimages, and acquired the habit among the devotees at Nasik. Musalman fakirs and Hindu devotees (mendicant religious) constitute a large proportion of the consumers.

28. (*a*) $\frac{1}{8}$ tola per diem; one pie per diem.

(*b*) No information.

29. (*a*) Tobacco for smoking. For eating and drinking, see answer 19. (*b*) No information. Dhatura is not used. Ganja is mixed with other ingredients because it is too strong to take neat.

Bhang massala is not known here.

30. Generally in solitude. There is (or was) a kind of private ganja-smoking club in Pen. Mainly confined to male sex and to adult life. Children do not usually consume it.

31. (*a*) and (*b*) Yes.

(*c*) Smoking, I should say but little; eating and drinking, none.

32. (1) At the Muharram, the Shimga or Holi, and the Gawri (Ganesh Chaturthi), those who dance and sing and otherwise exert themselves in the procession, etc., are wont to take a drink of the milk (or water) of the cocoanut sweetened with jaggery and strengthened with ganja. This is to make them excited and lively.

(2) On the Maha Shivratri, the god Shiva, being an ascetic, has a liquid preparation of things to which he is addicted, including ganja, poured over his image.

(3) Kunbis are wont to make offerings at the time of threshing to the local divinities of their fields. In a few (not more than 10 per cent.) of such offerings a small quantity of ganja is included.

(1) is not essential; (2) and (3) are probably considered so by the worshippers. (1) is generally temperate, and not likely to lead to the formation of the habit, nor otherwise injurious; (2) and (3) are purely ceremonial.

33. Generally with disapproval, quâ smoking; drinking with indifference. I do not think there is any religious public opinion against ganja smoking. Fakirs and Hindu devotees (to whom apparently all things are permissible) are generally smokers. Social public opinion is against others smoking. The sentiment is attributable to the native aversion (possibly partly religious) to the use of intoxicants and excitants. The hemp plant is not worshipped.

34. Yes; a habitual moderate consumer has smoked his whiff of ganja (he tells me) daily for 30 years before dinner, and without it he would neither enjoy his dinner nor sleep at night. To occasional consumers the privation would be small. For numbers, see answer 26.

35. (*a*) Hardly.

(*b*) Probably.

(*c*) Not without much trouble and doubtful success.

(*d*) and (*e*) No.

(*f*) It is impossible to say, except by guess. I guess that to some extent it would.

36. No.

37. Note—The answers which are given under this chapter relate to ganja only.

40. Native doctors do employ ganja in making up some of their prescriptions; but I do not know to what extent nor for what diseases. I do not know of ganja being used in cattle disease.

41. Ganja—

(*a*) Is an appetiser; is not a digestive.
(*b*) Gives power; see answer 32 (1).
(*c*) Is not so used here.
(*a*) Moderate habitual.
(*b*) Moderate occasional.

43. Yes.

44. Slight exhilaration; refreshing; it is too much to say that it produces intoxication, except in a very slight, incipient degree; it excites rather than allays hunger; creates appetite; effect lasts some four or five hours; after-effects *nil*; if the daily smoke be missed, distinct longing and uneasiness is felt. (Statement of a Sonar, aged 65, habitual smoker of $\frac{1}{8}$ to $\frac{1}{6}$ tola of ganja per diem for last 30 years.)

45. No. (Statement as per answer 44.)

46. See memo. appended, being copy of a letter from Assistant Surgeon, Alibagh.

47. The smoker above mentioned has six children, all born since he became a smoker; eldest aged 25. Eldest daughter has also six children; all are healthy; none are smokers.

48. No information.

49. It is, I have no doubt, so used, but I have no definite information on the subject, which is not a very easy one to ask consumers questions about. Sellers tell me that now and again a prostitute buys ganja, but they do not know for what use.

51. None ascertainable here.

55. No.

58. Works satisfactorily.

59. I have no suggestions to make.

62. Not at all necessary.

63 and 64. None.

65. (*b*) Reasonable.

66 and 67. No.

68. No. Such houses or shops are neither desired by the people nor desirable.

69. Yes. A shop is allowed to be opened only where there is such a large population that obviously there must be a certain proportion of people requiring ganja, or else where people ask for a shop, and on enquiry the Collector and District Magistrate thinks fit to grant the request. There is no objection to local public opinion being thus considered.

70. No facts regarding importation or smuggling of hemp drugs from Native States. Yes, duty is really paid. No general use of untaxed drugs.

15. *Evidence of* Mr. M. C. Gibb, *First Assistant Collector, Ahmednagar.*

51 and 52. Hemp is not largely consumed in any form by bad characters, and when it is, their consuming hemp has nothing to do with their committing crime. The largest hemp consumers are probably religious mendicants; some of these men may be bad characters, but if they are, their being so has no connection with their consuming hemp.

53. I have never known a case in which crime of any sort could be traced to indulgence in hemp. I have consulted eleven of the other magistrates of this district: one of them says he has known of a man's cutting off his wife's nose under the influence of hemp which he had been smoking; he adds that he thinks consumption of hemp is not sufficient to induce a man to commit a crime of violence without provocation. The other magistrates report that they have never known cases in which crimes were the result of indulgence in hemp. One magistrate reports that hemp produces inconsiderateness, *i.e.*, carelessness of consequences. If this is the case (and it seems plausible) a man might commit crimes of violence more readily when under the influence of hemp, although the hemp did not directly provoke to violence. This would, for instance, account for a man's cutting off his wife's nose when under the influence of hemp, but in consequence of infidelity or supposed infidelity on the part of the wife when possibly had the man not been taking hemp he would have been equally anxious to cut off his wife's nose, but would have too much been afraid of the consequences to himself to do so. The same effect might, of course, be produced by indulgence in liquor, and it cannot be said that indulgence in hemp, because it is (if it is) capable of producing this effect, incites to crimes of violence. As far, therefore, as my own experience goes, and as far as the opinion of eleven of the other magistrates of this district goes, there is nothing to show that indulgence in hemp incites to crime.

Of course I have heard of cases in which running amuck has been said to be due to indulgence in hemp; these cases, however, as far as I remember have occurred in the north of India, and I know nothing personally about them. Here, again it would be a question, supposing that the running amuck would not have taken place but for indulgence in hemp, "did such indulgence actually cause a desire to be violent, or was the desire to be violent present before, and did indulgence in hemp merely cause carelessness of consequences?" Cases of violence, the result of lunacy produced by indulgence in hemp, do not, I presume, come within the scope of the question.

54. Of eleven magistrates whom I have consulted, one says "licentious persons do take them (hemp drugs) to enhance * * * the pleasure they hope they derive from their vice, or perhaps more correctly to drive away any compunctions of conscience****. If such persons are thwarted*** hemp drugs consumed indirectly help them to commit some act of violence." This is the same magistrate who says hemp produces inconsiderateness. Neither I nor any of the eleven magistrates I have consulted have ever known of a man taking hemp in order to fortify himself to commit crime.

55. I have no personal knowledge as to whether indulgence in hemp can produce complete stupefaction or not. The opinions of the eleven magistrates in this district whom I have consulted differ. Some say it can, some it cannot; some that it can in an unaccustomed subject. One says "one of my friends once thought of drinking ghota (a form of bhang). He took it in excess, and as a consequence he fell to the ground completely senseless for some hours." This is conclusive as regards the possibility of a man not accustomed to it being stupefied by drinking ghota; whether ganja smoking would completely stupefy is probably more doubtful. I have never come across a case in which criminals have stupefied their victims by means of any form of hemp. Some of the magistrates consulted, report that majum (a sweatmeat prepared from the hemp) is given by criminals to stupefy their victims, some that majum mixed with dhatura is given; I am inclined to think that majum when used in this way has dhatura mixed with it, or at all events is not a preparation of hemp unmixed.

---

16. *Evidence of* Mr. H. W. Bagnell, *Assistant Magistrate, Poona.*

51. Bad characters may be said generally to be habitual moderate consumers of these drugs according to their means. The moderate use has no marked connection with crime, either of general or particular character, except perhaps with thieving. Consumers of these drugs are now and then driven to theft to satisfy their craving for them.

52. Excessive use eventually makes the consumer go mad. But I do not consider that as a rule it excites to crime in general or to crime of a special character with the abovementioned rare exception.

53. Excessive indulgence is said to deter rather than to incite to unpremeditated crime, violent or otherwise; the consumer in excess becomes stupid and inactive so as to lose all his energy. I am not aware of a single case in which it has led to temporary homicidal frenzy.

54. Criminals do not use these drugs to fortify themselves to commit a premeditated act of violence or crime. These drugs have a stupefying effect, rendering a man almost helpless.

55. These drugs are said to be administered by criminals to their victims with the object of stupefying them, to facilitate theft or deception of any kind. Opinions differ as to the character of stupefaction caused. The majority consulted state that complete stupefaction can be caused without admixture; others believe that to a person unaccustomed to the use of such drugs only can such stupefaction be caused without the aid of other drugs. All agree that sufficient stupefaction for the above-mentioned purposes can be effected without admixture, while one opinion declares that for complete stupefaction some admixture is needed.

17. *Evidence of* Mr. C. G. Dodgson, *Assistant Magistrate and Collector, Khandesh.*

1. I have had few opportunities, hemp drugs being used to a slight extent only in Khandesh. I have lately, however, *i.e.*, since the receipt of these questions, been making enquiries from persons likely to be acquainted with the matter, *viz.*, consumers, sellers, and Abkari Inspectors. I have also obtained information from the Civil Surgeon of Dhulia. My answers are chiefly the result of information derived from others rather than the results of my own observation.

2. There is no charas in Khandesh. Flat ganja and bhang are used here.

These definitions may be accepted for flat ganja and bhang. Ganja and bhang are the names given to these products in Khandesh.

3. A few, but very few, hemp plants grow spontaneously in the Dangs, which are under the Khandesh Political Agency. I know of no districts in which they are abundant.

5. I am unable to say.

6. In the Dangs the growth is scattered, there being hardly any plants at all.

7. Hemp plants are cultivated in the Jalgaon taluka of Khandesh, for the production of ganja and for use as bhang; they are not cultivated for the production of charas or for the sake of the fibre or seed. The cultivation is only carried on to a small extent.

9. I have no knowledge on this subject, never having seen the plant.

10. They do not form a special class. They are of the same classes as other agricultural cultivators.

12. No; this is not the case here.

13. The cultivation of the hemp plant for ganja is not restricted to any particular part of Khandesh, although it so happens that cultivation only takes place in one taluka, *viz.*, Jalgaon.

14. Ganja and bhang are prepared in the Jalgaon taluka, but to a small extent only.

18. Ganja and bhang both deteriorate by keeping. Both will keep fairly good for about two or three years. There appears to be no means of preventing rapid deterioration after about three years. Deterioration, however, begins to set in after one year.

19. Ganja is used only for smoking; it is smoked out of a chillum together with tobacco, the tobacco being put on the top.

20. Ganja smoking is not confined to any particular class, although fakirs and gosains smoke more than any other class. Bhils smoke a little, but not much. There appears to be no difference between Hindus and Musalmans as regards the extent to which ganja is smoked. Ganja smoking is not confined to any particular part of the district.

21. Flat ganja is the only form of ganja used in Khandesh.

22. To the best of my belief no charas is used here.

23. Yes, occasionally, but very seldom. Persons addicted to the habit of smoking ganja will, if ganja is not procurable, smoke bhang. Bhang, when smoked, is smoked without tobacco being mixed in it. It is smoked in the form of a cigarette, or native "bidi."

24. Bhang is seldom eaten; it is generally drunk. Fakirs, bairagis, and gosains both eat and drink it more than other classes do. Other Mussalmans occasionally, but rarely, eat it, fried with meat. The practice is not confined to any particular locality.

25. As far as I have been able to ascertain, the use is much the same as hitherto. There appears to be no increase or decrease.

27. The broad distinction between the use of ganja and bhang is that the former is chiefly confined to the poorer and lower classes of society. Fakirs, bairagis, and gosains may be classed as habitual consumers; the majority of them are habitual excessive consumers. Want of regular employment, want of settled homes, want of regular food are the principal causes which lead to the use of the drugs.

28. (*a*) From half to two tolas, *i.e.*, six pies to two annas per diem for ganja.

(*b*) About six tolas, *i.e.*, six annas or more per diem for ganja.

I do not refer to bhang, as bhang is used here to a much less extent than ganja, and I have little knowledge about it.

29. With ganja, tobacco is ordinarily mixed with a view to softening the effect. With bhang, pepper and sugar are ordinarily mixed. With ganja, dhatura is exceptionally mixed with a view to increasing the intoxicating effect. Persons who have been accustomed to the use of charas or opium are said to mix dhatura with their ganja. From bhang, three other preparations are made, *viz.*, akhoti, majum, and gota. Akhoti is made by mixing one part of butter with two parts of bhang, adding a quantity of water and boiling the whole for several days. The result is a pink flat product, not unlike cocoanut rock to look at. Majum is made by mixing bhang and white sugar and boiling them in water. The result looks like chocolate. Gota is made by mixing bhang with almonds, black pepper, aniseed, milk, sugar and other spices. I know of no special preparation which is sold ready made for the purpose of being mixed with these drugs, but the use of gota is not uncommon; gota is prepared by the purchasers of the bhang.

30. Among the upper classes, such as Brahmins, these drugs, when consumed at all, are generally consumed in solitude. The largest class of consumers, however, *i.e.*, fakirs, gosains, etc., generally consume them in company. Ganja is more likely to be consumed in solitude than bhang. The use is chiefly confined to the male sex and to men well on in years. Women, however, at times take akhoti. Old men take akhoti and majum. Children seldom, if ever, smoke ganja; they frequently take bhang in the form of gota.

31. The habit appears to be easily formed and to be difficult to break off. There is a tendency for the moderate habit to develop into the excessive. The habit of taking ganja is more easily formed than that of taking bhang.

32. The practice of drinking bhang in the form of gota is fairly common in the hot season. The drink is said to be refreshing and to have a cooling effect.

33. There is little opinion one way or another among the public concerning the use of these

drugs. On the whole public opinion may be said to be against the use of ganja, on account of its intoxicating effects. There is no custom of worshipping the hemp plant.

34. It would be a very serious privation to fakirs, gosains and similar classes, on account of their being accustomed to the constant use of the drugs. The number of persons to whom the privation would be serious would probably not exceed at the most 1,000 in the whole of Khandesh.

35. It would be difficult to enforce such a prohibition. There would undoubtedly be illicit consumption. Illicit cultivation of the hemp would be easy to check, but smuggling would increase. There would undoubtedly be serious discontent among the consumers, but it would not, in Khandesh, amount to a political danger. The prohibition would probably be followed by a slight increase in the consumption of liquor and by a decided increase in the use of tobacco.

38. I am only acquainted with flat ganja.

39. Smoking ganja is said to be less injurious than eating majum, unless the latter is only taken in very small quantities. Majum when taken in large quantities has an instantaneous and powerfully intoxicating effect.

40. Ganja is sometimes used by native doctors as a febrifuge and sedative in cases of fever and asthma. It is also occasionally used for poultices and also used for the purpose of relieving pain when performing operations. It is also used by them to check diarrhœa. Bhang is used for cattle when they are out of condition and off their feed; it has the effect of stimulating their appetite. It is also given to horses for the same purpose.

41. The answer to (*a*), (*b*), and (*c*) is yes, as regards the moderate use of bhang. The moderate habitual use is referred to.

42. The moderate use of bhang may be said to be harmless, but the use must be very moderate.

43. Yes, as far as I have been able to ascertain.

44. The immediate effect of the moderate use of bhang on the habitual consumer is refreshing and invigorating. The effect of ganja is to produce a feeling, which is said to be pleasant, of laziness and absence of care. Both bhang and ganja will produce intoxication, if the use of them is excessive. The moderate use of bhang allays hunger and creates appetite. The effect of ganja lasts for 2 or 3 hours; that of bhang lasts somewhat longer, depending of course on the quantity consumed, excessive use of bhang may create an intoxicating effect which will last for two or three days. Majum and akhoti if taken in moderation do not have an effect until about two hours after consumption; the effect then lasts for three or four hours. The want of subsequent gratification in the case of habitual consumers produces longing and uneasiness and produces a feeling of bodily weakness. Ganja is at times smoked in case of illness, to relieve pain.

45. The habitual moderate use of bhang does not produce any of the first five evil effects referred to in the question; but the habitual moderate use of ganja produces them all. Such a use of ganja may produce insanity, which is likely to be permanent unless the use of the drug is given up, when there is a chance of the patient recovering. In the case of a temporary maniac the symptoms may be reinduced by the use of the drug after liberation from restraint. Insanes who have no recorded ganja history do at times confess to the use of the drug.

46. The excessive use of ganja, majum or akhoti will have the same effects as are referred to above, but in an aggravated form. Persons who smoke, as some few do, as much as 20 tolas of ganja per diem rapidly succumb to its effects.

47. The habitual moderate use is not hereditary and does not in any way affect the children of the consumer.

49. All these drugs, but especially ganja and majum, are used as aphrodisiacs. They are also used by prostitutes. The use of these drugs does tend to produce impotence, and in so far that it has this effect it is more injurious than when used merely as a narcotic.

51. Bad characters in so far that they are often persons with no fixed homes, or no regular means of employment, are frequently habitual moderate smokers of ganja. In my experience the use of the drug has no other connection with crime.

53. Excessive indulgence in any of these drugs or other preparations is apt to lead to unpremeditated crime. A man intoxicated by such indulgence will lose his self-control and be likely to do any act that occurs to him without considering whether it be good or bad. I know of no case in which it has led to temporary homicidal frenzy.

56. The admixture of tobacco with ganja lessens the intoxicating effect. The admixture of dhatura increases it. Gota, which I have referred to in my answer to question 29, is much milder than mere bhang. Majum is decidedly stronger.

58. I am acquainted with the present system of excise administration in regard to these drugs and consider that on the whole it works well. There are however two points in which I think there is perhaps room for improvement (see answers to questions 59 and 60).

59. At present a man is allowed to have in his possession 40 tolas of bhang or ganja. Possession of bhang or ganja in excess of this quantity is an offence. I think 15 or 20 tolas ought to be the limit. Even with this amount a man can render himself and 3 or 4 other people intoxicated to such an extent as to lose all self-control. Forty tolas is in my opinion too high. It is impossible to cut the limit down very low, because doing so would necessitate increasing the number of licensed shops in order not to put habitual consumers to great inconvenience, and an increase in the number of shops would tend to cause an increase in the number of persons consuming the drugs.

60. I am told that the cultivators storing as they do their produce in their own houses and selling it to the contractor, frequently sell the drugs retail, which they are not allowed to do. It has been suggested to me that the drug should, when prepared, be at once taken charge of by Government officers, so as to prevent this illicit retail sale. As I am, however, not personally acquainted with the system of cultivation and manufacture, I am not in a position to express any very decided opinion on this point. If any action is to be taken in this direction an amendment in the law would appear to be required.

62. Bhang is on the same footing as ganja in this respect.

63. No. The present system works well and beyond the point raised in my answer to question 59 I can suggest no improvement.

64. No. The present system works well.

65. Ganja and bhang are not taxed separately in Khandesh. The right of selling these is farmed

out for a lump sum. No fee is charged for permission to cultivate.

66. Only flat ganja is used in Khandesh.

67. The present system appears unobjectionable.

68. There are no such houses or shops and I do not think that there ought to be.

69. The people are consulted and I think rightly. Inquiries are made by Government officers and the general feeling on the subject is thus ascertained.

70. I do not think that these drugs are smuggled to a large extent. Smuggling to a small extent for the personal consumption of the smuggler no doubt takes place and is hard to stop. The farmer or contractor has to pay a lump sum to Government for his contract. He recovers the money from the purchasers of the drugs, a tax on which must therefore be considered to be really paid by the consumers.

---

18. *Evidence of the* Hon'ble G. D. Pansé, *First Assistant Collector, Ratnagiri.*

51. In discussing this question I have to divide bad characters into the following classes :—

(*a*) Dacoits and robbers ;

(*b*) Habitual thieves, who commit petty thefts ;

(*c*) Gamblers ;

(*d*) Pickpockets ; and

(*e*) Idlers with no ostensible means of living, of whom not a few are persons going about in the characters of fakirs and bairagis.

Of the above, persons in class (*a*) are rarely found to indulge to any degree in ganja or any other preparation of the hemp, as their calling requires them to be always active and rove about in search of prey, carefully deluding the eye of the Police and the public. Ganja and all other unmixed preparations of hemp never help persons addicted to them in doing deeds of daring and keeping active vigils. The effect of ganja smoking, which is the form in which it is generally used in the Deccan and Konkan, is to confine the energies of those addicted to them to the particular calling in which they are engaged, but in a subdued state. Those who are most accustomed to it are found to be emaciated and care-worn and scarcely capable of any active duty. Prevention of cold and protection against infectious diseases are the good qualities supposed to underlie the use of the drug, while affections of the lungs and gradual loss of blood and energy are the evil results of its use. Those who use ganja can be made out at a glance by the haggard and care-worn appearance and sunken eyes. Bhang used in the form of "gota," *i. e.*, a preparation in which bhang is first cleansed and well mixed with water and pounded and afterwards mixed with milk, is used mostly by the richer classes, and is supposed to be a nutritive preparation, but not possessing the intoxicating quality like ganja. More than 90 per cent. lace-makers of the Deccan are habituated to the use of ganja, though they are a most peace-abiding class. Their profession is such that it calls for the use of some stimulant confining their energies to their calling. Under the influence of that drug they work most elaborately and turn out a quality of work which otherwise they should not be certainly able to do. In Sanskrit this hemp is termed "Dnyanvalli" and "Shambhavi" in that it is supposed to confine the attention of the individuals using it to the particular subject on which one begins to think before subjecting oneself to its influence, and the jogis and the really genuine class of bairagis never stop at a place where they are apprised of the fact that ganja is not sold there. Above and beyond this, it does not energize a man; on the other hand, it has a tendency to come in the way of the devices of the robbers and dacoits in course of their daring and mischievous deeds. Mangs, Ramwanshis, Talwars, Kolis, Bhils and other aborigines, who form the greater number of dacoits, never use ganja or other drugs in which that article enters as an ingredient. In my experience of the Deccan districts, I have never come across a case of dacoity, robbery or any other heinous offence committed by persons under the influence of that drug.

As for class (*b*), criminal records of either Deccan or Konkan will not reveal any cases of thefts or of ordinary violence committed while under the influence of ganja, though as far as my enquiries and private information go, a good many petty thefts are committed by persons who are moderate consumers of ganja. I must qualify my remark, however, by saying that rather than under the influence of the drug, such thefts are committed in furtherance of the vice by persons who cannot otherwise obtain the means of procuring that drug.

(*c*) Under this class are found good many persons addicted to ganja smoking, in that it helps them in keeping vigils and drown the cares and anxiety caused by heavy losses, which is the general lot of the class. It makes them persist in the play in the fond hope of making up their losses.

(*d*) Pickpockets may be classed with persons described in class (*b*), and the remarks passed with regard to them apply also to this class.

(*e*) A greater portion of fakirs and bairagis are so only in name and are habitually given up to the consumption of ganja. They go about from house to house even in the smallest out-of-the-way villages and, carefully obtaining clue to the property in the house which they visit, remove it at convenient hours of day or night; sometimes they go in batches with families who conceal the illicit acquisitions of the males in "godhadis" and other wearing apparel. These people often make preparations of the drugs and slily use them in deceiving their innocent and ignorant companions (pilgrims) in travelling. I shall touch in detail this point in replying to question 55.

Excepting in the shape described above, ganja, bhang or charas moderately used never tends to the commission of any crime of a general or any special character.

52. Excessive use of these drugs utterly renders a man useless for any human purposes, so that crime committed under such influence need not be even dreamt about. Among bad characters instances are found of such persons as excessively use the drug in class (*e*) only, and they are entirely doomed. Most of their time is taken up in dozing and coughing away the effects. They are rarely of any use in domestic or public concerns, and they are a class utterly despised. Emasculation and emaciation are the very necessary results of the excessive use of ganja in all forms.

53. Unpremeditated crimes, violent or otherwise, are in my opinion incapable of being committed by persons given up to excessive indulgence in these drugs. I have never known an instance of a murder committed by a person whose temper was excited by the use of ganja or bhang. For the hemp does not deprive a man totally of his senses, and so much of sensibility is left in him as to make him distinguish between a good and a bad act. During my service as Assistant Collector in the districts of the Deccan and Gujarat, and latterly in Konkan, I never came across a single instance of murder committed under its influence. If murders are at all committed by a person after smoking ganja, I cannot believe it may be considered to be in any way influenced by its use.

54. No. I have given reasons in detail to show how the hemp does not fortify a man to do any active deed. It is merely a passive agent for keeping up spirits and confining a man's energies to any work in a limited groove to which one is accustomed. For when one is habituated to the use of ganja or bhang, the ordinary routine business of even the ordinarily employed is at a stop without it. Criminality is certainly beyond the pale of ordinary routine, however habitual an offence may become, and the tact and astuteness that are required to be exercised by the criminal cannot be mustered by the use of these drugs.

55. Ganja and bhang in their pure state are not generally employed by criminals in inducing their victims to partake of them to further their criminal designs. Ganja is sometimes used where the victims happen to be tobacco-smokers, a little strong powder being adulterated with tobacco while being placed in the pipe. To those who do not smoke the criminals administer bhang in the shape of preparations called "majum," a sweetmeat preparation, pleasant enough to eat. But neither of these drugs is sufficient to deprive the victims completely of their senses, but only to an extent sufficient to make them powerless to resist. It is only in extreme cases that I have heard of instances of some of the spurious bairagis using bhang admixtured in dhatura for inducing complete unconsciousness with the object latterly of committing serious crimes, as murder, etc. The victims happen to belong generally to illiterate classes or women and children. The higher classes are not generally induced to partake of such preparations, and the instances are few or none in which any intelligent person suffered himself to become a victim of such persons. Complete stupefaction by the use of these drugs unadulterated with dhatura or opium is impossible.

---

19. *Evidence of* Mr. A. H. Plunkett, *City Magistrate, Poona.*

1. My service extends over a period of 41 years, during which time I have served in Bombay, Sind, Dharwar, Thana, Nasik and Poona. The nature of my work has brought me in contact with men of many races and castes. My information regarding hemp drugs, the manufacture of narcotics therefrom, and their uses has been chiefly derived from persons from many classes selected and examined by me and from such general knowledge of the subject as I have acquired while in Sind, the Southern Mahratta country and the Deccan. I have taken care to verify the information I have collected by reference to official records and by careful examination of many men, such as bairagis, gosains, fakirs and others whose statements I have taken down in writing.

2. The definitions given by Dr. Prain in his report of the two narcotic drugs (charas and ganja) may be accepted. Bhang as defined by him is not available in the district, and what is described as "chur" is called bhang. The different names of bhang mentioned by him are well understood in this part of the Deccan, but those that are commonly used are bhang and patti. The names subji and siddhi are rarely used. Of the three varieties of ganja only two are known—the "flat ganja" and the "chur" of flat ganja. Round ganja is not known in this district. I have not found what round ganja is like, or how it is prepared. Ganja is thus known as flat ganja and "chur" or broken ganja also called bhang. Bhang retains its name, and is also known by the name "patti." Charas retains its name and has no other name.

3, 4, 5 and 6. I am not aware that in any part of the Deccan the hemp plant grows spontaneously; at any rate in no tract in this part of the Deccan, as far as I can learn, is wild hemp growth known. From enquiries made I do not find that wild hemp is at all known, at any rate in this district. I have thus no data on which I can base replies to questions 3 to 6. The mamlatdar of Newasa in the Ahmednagar Collectorate, however, reports that the plant seldom grows spontaneously in his taluka.

7. In parts of the Poona, Thana, Dharwar and Nasik districts the hemp plant is cultivated more or less. In parts of the Ahmednagar, Khandesh and Sholapur districts it is stated the plant is grown largely, especially in Ahmednagar. The purposes for which it is cultivated are as under—

For the production of ganja.

For the production of bhang.

For charas, cultivation of hemp is not found to be resorted to, although while cutting the flowered tops and leaves a resinous exudation attaches to the hands, which is scraped off and collected in pills. This is called the charas. There is no cultivation for the purposes of extracting charas in any part of this country. As far as I can ascertain, charas is imported into Bombay from Upper India and Afghanistan. Hemp is cultivated from seeds only. In one village (Kamargaon) of the Ahmednagar taluka, it is said the plant is cultivated for seed only. It is not, as far as can be ascertained, a fibre-yielding plant.

There is no separate cultivation of the plant for each of the products ganja and bhang. One single cultivation yields both ganja and bhang and charas also to a very small extent. Strictly speaking, there is no cultivation, so to say, of the plant for the purpose of bhang. Bhang proper is not produced in this country. The plant which yields, it is said, is not the female plant as cultivated in this part of the country, but the male plant called bhangara, which is largely cultivated in Northern India and which yields the genuine bhang. The bhang which is sold is the "patti" and "chur" detached from ganja flowers and leaves. The female plant yields ganja, which consists of dried flowering tops, and also bhang, which consists of dried "patti" and other detached portions from the flowering tops and leaves. Bhang

proper, is rarely imported into this part of India, as its place is supplied by the dried leaves of the female plant. The hemp plant as cultivated yields at one and the same time both ganja and the so-called bhang.

In this district hemp is cultivated in a few villages of the Sirur, Indapur, and Bhimthari talukas, in all nine villages. The area under cultivation is about ten acres only. From 1873-74 to 1882-83 statistics are not available; in 1883-84 the area under cultivation was 24 acres, 10 and 19 acres in two succeeding years, 35 and 30 acres in 1886-87 and 1887-88, and 16 to 17 acres for the three succeeding years respectively. The area under cultivation was highest in 1886-87 and lowest in 1889-90. On the whole, the cultivation would appear to be on the decline.

8. In the Poona district the area under cultivation has been decreasing from 1887-88. The reason assigned being that cultivators do not find it more profitable than ordinary agriculture. The area under cultivation is so small that the variations do not call for comment. The cultivation of hemp appears not to be popular with the agriculturists in this district. The demands of the district being easily met by importations from the neighbouring district of Ahmednagar may also account for the decrease of local production.

9. The method followed in cultivating the hemp plant may be described briefly as under.

There is no difficulty felt in the selection of land. Any soil is suited, except "muram" and hard soil. Black soil is however the best; although in many cases the whitish-grey as well as red soil is used. All bagait lands are well suited for the cultivation of the hemp plant. The sites selected are generally moist, not shaded. The land is ploughed well three or four times. The first ploughing takes place in the months of April and May, when ordinarily agricultural lands are prepared. The soil is thus well prepared by two to three courses of ploughing. The rains are awaited. In June when the land is once or twice flooded, it is again ploughed and harrowed. It is then manured with cow-dung and rubbish, also with ashes in some cases. After another fall of rain, the land is once more harrowed and the soil is then quite ready to receive the seed. About the close of June the seed is sown, which appears well within a week. The plants are then thinned if they come up too closely and are kept carefully weeded. If the rains are seasonable, no watering is required, otherwise one or two waterings are given. When the plant grows a little over a foot high, the lower twigs are cut off so as to favour a more healthy growth of the tops and flowers. Experts called "parkhi" are then employed to distinguish between the male and female plants in order to eradicate the former, as their presence in the field fecundates the female plants and causes them to run into seed, producing little or no ganja. This process over, weeding if necessary is repeated. The female plants mature towards the close of November when harvesting commences, the process of which is described under question 15.

10. My enquiries do not show that persons who cultivate hemp for its narcotic properties form a special class. They are ordinary agricultural cultivators.

11. No. Ganja plants are not raised from the seed of the wild hemp. Wild hemp is not known in this district. Seed for ganja cultivation is obtained from Ahmednagar, where seed is purchased.

12. The ganja plant is raised from seeds obtained as above stated. The plant so raised in no way partakes of the nature of wild hemp. The seed plant is not grown for the purpose of ganja, but for seed only. In this district the seed plant is not grown, but in Ahmednagar it is, and I understand in this case the male plant is not extirpated, as otherwise it would not be possible to impregnate the female plant for the purpose of seed.

13. The cultivation of the hemp plant for ganja is not restricted in this district, although only in three of eight talukas the cultivation occurs. The Mawal taluka and the western parts of the Haveli, Junner and Khed talukas are unsuited for the cultivation of the plant owing to the heavy rainfall and the hard muram soil in those areas; lands situated in or adjoining the ghats where the rainfall is heavy do not appear to be suitable for hemp cultivation; the plant is said to thrive in a whitish brown soil in Newasa, Ahmednagar Collectorate, as stated by the mamlatdar. I am unable to say if the cultivation of the plant is impossible in any part of the district, but it would appear that heavy rainfall, a damp climate, and hilly tracts are not favourable to the growth of the plant.

14. My reply to question 7 shows that in this district the cultivation of the hemp plant is limited to about 17 acres. The products of the plant are comparatively small. The yield is about 153 maunds of ganja and as much of bhang. No reliable statistics are available on this head, and I have not been able as yet to obtain trustworthy information regarding the average annual outturn of each of the two products of bhang and ganja during past years; but from enquiries made locally I learn an acre gives an average yield of 9 maunds of each of the two products. The outturn of ganja and of bhang may in this district therefore be taken at 9 maunds per acre. The drugs are locally manufactured in the villages of Indapur, Bhimthari, Sirur and in Haveli taluka in this district. Charas is not found to be manufactured in this district.

15. The wild plant is not found in this district, nor is it obtained for the purpose of manufacturing drugs therefrom. The cultivated plant only is available. As stated in replies to previous questions, ganja and bhang in this province are produced from one and the same plant. The flowering tops supply ganja, and the leaves and residue of the flowers, bhang.

When the seed is sown in June, it matures in the month of November, about the Dewali holidays. The state of maturity is indicated by a brownish appearance of the crop and falling down of all the larger leaves. The cultivator then makes his arrangements for reaping the crop and preparing the drug, a piece of ground is prepared and cleared of stubble and grass and made quite even. The ordinary threshing ground (Khale) serves the purpose. The ground being prepared, the crop is taken up generally in the morning. The flower tops are cut with a scythe, the leaves are pulled off by hand. The crop collected is stacked in the threshing ground and is trodden over in the afternoon; as evening sets in the operation of treading is suspended, leaving the stalks and flowers, etc., on the ground for exposure to the dew. On the following day the process of treading is resumed until the quantity

so trodden on becomes flat, when a second layer of flowering tops and leaves is brought in and pressed and trampled on; a third and fourth layer is formed until the mass rises a foot high. The treading is required in order to produce flat sheaves of ganja, which is easily accomplished by the resinous secretion which the plant and its flowers contain. The exudation so produced adheres to the crushed leaves and flowers and produces a mass. This process is repeated for three or four consecutive days, by which time the product gets dry. The small twigs are thrown away, ganja is collected, the broken leaves and residue of the ganja is also separately collected. Seed if any is picked up and stored, ganja thus made is then packed in bales, the broken leaves and the small bits detached from ganja in the process of manufacture are separately packed, and supply what is known as bhang in this part of India. This preparation should be regarded as "chur" (broken ganja), but in this part of India it is sold as bhang. The cutting is usually done by women and the trampling by men. The women work from 7 to 11 A.M., the men from 1 to 6 P.M., with several intermissions.

Both ganja and "chur" are used for smoking. The latter however rarely. "Chur" or "bhang" is mostly used for drinking; ganja is also used for preparing some of the narcotic preparations usually used for eating. The methods followed in preparing each of the preparations for smoking and eating and drinking are as described below:—

1. Ganja for smoking.

The process of preparing this drug for smoking is to take 2 or 3 flat tops and wash them with water several times so as to remove any dirt, stalks and seeds and other foreign matter. The moisture is then pressed out, an equal quantity of tobacco is added to the ganja thus washed, and the whole mixture is put into a "chillum" or "huka" bowl and is smoked.

2. Ganja for eating is used in four preparations, *viz.*:—

(1) Majum, (2) yakuti, (3) shrikhand, (4) gulkhand, which are made as under—

Take five sers of ganja and wash it three or four times so as to remove dirt, seeds and stalks. Put it into 20 sers of water with 2½ sers of ghi and boil the mixture for 12 hours. Thus boiled with ghi, the latter receives the narcotic properties of the ganja. The mixture thus boiled is strained through a thin clean cloth into a pan. The residue is thrown away. When the ghi cools it is collected in a separate receptacle and the water is thrown away. This ghi is the principal constituent of each of the confections mentioned above.

(1) To prepare majum, make a syrup of one ser of sugar, adding one-sixteenth of a ser of the narcotised ghi prepared as above; mix well while hot, pour the mixture into a broad-mouthed utensil; when cool it hardens and is then cut into small tablets. This is called "majum" and is eaten. It is a favourite form of taking the drug. In Upper India I learn it is made from bhang; but in this part of the country I have ascertained it is made mostly from ganja and very rarely from bhang.

(2) To prepare "gulkhand." Take one ser of the ordinary "gulkhand" (a confection of roses and sugarcandy) and add to it one-sixteenth of a ser of the narcotized ghi; mix them well together. The preparation is called gulkhand, which is eaten.

(3) To prepare shrikhand. Take one ser of jagri syrup, add one-sixteenth of the narcotized ghi and cardamons.

(4) To prepare yakuti. Take one ser of sugar syrup and add one-sixteenth of the narcotized ghi, flavour with cardamoms, nutmeg and mace, and make up into lozenges. Yakuti is eaten. No other preparations are made from ganja in this part of the country.

Bhang.—I have already said that bhang as such is not separately grown or produced in this part of India. In Upper India the leaves of the wild plant called "bhangara" yield bhang, the cultivated female plant ganja. The description of ganja as the "agglutinated female flowering tops" may be accepted as true both here and elsewhere, but the definition of bhang as the "mature leaves of the wild plant," however correct in Upper India, does not apply here, as the wild plant is rare or is not known here. Bhang as understood here does include leaves, but they are the leaves of the female cultivated plant. The term also includes what is called "chur" in Upper India, which is made up of little bits of flowers detached from ganja. Bhang is thus taken to include the leaves and the bits that are detached from the ganja plant while under the process of treading on the threshing ground. This bhang is used mostly for the purpose of preparing a drink styled "gota," and is used by the poorer classes for smoking.

For smoking, the process is the same as that for ganja smoking. Gota is regarded as a delicious beverage, and is prepared as under—

Take bhang and wash it three or four times. Grind well on a stone slab until it is reduced to fine powder. Add water little by little until a green liquid is obtained. Then strain through a cloth. Take one to two drachms of this liquid and mix with milk and sugar, adding cardamoms, pepper, aniseed, poppy seed, also almonds and rose buds. This is held to be a very delicious and refreshing beverage and is usually used in summer.

16. Bhang is never prepared at home. It is prepared in the field. Gota, which is a drink made from bhang, is prepared at home. But bhang is prepared almost always at the place where the plant is grown in the field.

17. The preparation of hemp drugs is not confined to any special classes. The ordinary agriculturists who cultivate the plant, manufacture ganja and bhang, and the several preparations from these drugs are made by the vendors, who have to take out licenses from the Collector of the district to manufacture and sell the drugs.

18. Ganja and bhang deteriorate by keeping. They retain their properties for about a year, whether well kept or not. There is deterioration also by exposure. It is said to be quite unfit for use after two years. The causes of deterioration are damp and moisture, exposure to heat generally. If well packed and carefully prepared, ganja and bhang retain their properties for two years. The measures taken against deterioration consist of careful keeping to prevent the drug from exposure to heat and damp.

19. Ganja is used for smoking as well as for making up narcotic preparations, such as those mentioned in my reply to question 15. For smoking, ganja is used throughout the district and for eatable narcotic confections in Poona city and cantonments only. In the country, majum,

yakuti, etc., are rarely prepared and sold. Charas is not used in this district.

20. All classes of people resort to ganja smoking. But bairagis, sadhus, gosains, hakims ,and men of the mendicant class and ascetics use ganja for smoking throughout the district. Smoking is not confined to any locality.

21. Generally flat ganja is used for smoking. "Chur," which in this part of the country is called bhang, is also used for smoking by the poorer classes.

22. Charas is not used in this district.

23. Bhang is used also, as stated above, for the purpose of smoking. Such use is not confined to any locality. It is used by the poorer people as being cheaper than ganja.

24. In answering this question I must state that, unlike Upper India, where real bhang is available, ganja is used for making confections, such as majum, yakuti, etc., and the so-called bhang is used here for drinking. The proportion of the people using the eatables to those who drink bhang is about the same.

25. Statistics available do not show that the use of ganja and bhang is increasing. The figures supplied by the farmers of the drug, and those obtained from official records, do not show a tendency towards any noticeable increase in consumption.

26. Statistics are not available, as under the present system of keeping accounts at shops for sale of intoxicating drugs, no record is kept of the number of persons purchasing ganja and its preparations. Taking, however, the average allowance of ganja which an habitual moderate consumer requires daily, as also the quantity of ganja sold in the year, it appears that in the Poona district there are 2,630 habitual moderate consumers of ganja and about 130 habitual excessive consumers of it. It is not possible to give the number for either occasional moderate or occasional excessive consumers of ganja. It is very rare that ganja is smoked occasionally. The relative proportion of consumers of the sweetened drugs and the consumers of the drink preparations is so small that it would be difficult to fix the number of consumers of the various preparations of ganja and bhang. The average proportions are noted in my reply to question 34.

27. I am unable to give the proportions of classes of persons using the drugs. All classes use them, but gosains, fakirs, bairagis and other people of the mendicant classes use the drugs as habitual moderate or excessive consumers. Their habits of life and their pilgrimages lead to the habitual use of the drugs, especially that of ganja smoking and gota-drinking, in order to enable them to bear climatic changes and to endure fatigue.

28. The average allowance and cost per diem of ganja to habitual moderate consumers and to habitual excessive consumers is one and two tolas weight and one and two annas respectively per head. The average daily allowance and cost of bhang per head is (3 and 6 mashas) 45 and 90 grains, valued at 3 and 6 pice respectively.

29. Tobacco is ordinarily mixed with ganja when the latter is used for smoking; and sugar, milk, cardamoms and mace are used for making up the beverage called ghota from bhang. The narcotic preparations from ganja have been described above. The object of this admixture is to give a flavour to the preparations, and also to lessen to some extent the narcotic properties of the preparations. Dhatura is not so used in this part of the country as far as my information goes. The bhang "massala" consists of a conserve of black pepper, aniseed, almonds, cardamoms, mace, rose buds, sugar, etc. This massala is used for making up yakuti and shrikhand.

30. The extent cannot be precisely stated, but I learn that ganja and bhang are consumed more in company than in solitude except in the case of gosains and ascetics practising religious austerities, who habitually smoke ganja. The consumption is mostly confined to the male sex. The habit is said to be usually contracted in adult age. Women and children are not found to use the drugs. Prostitutes are said, however, to use them occasionally.

31. The habit of consuming these drugs is easily formed, and once formed, it is difficult to break off. There is, I learn, no tendency in the case of any of these drugs for the moderate habit to develop into the excessive. There are, however, cases of moderate consumers having developed into excessive consumers. There is, however, nothing inherent in the drug to lead to such results. An ordinary smoker is satisfied with two smokes of ganja a day, while the excessive has several.

32. On fast days it is usual to use the drugs more than otherwise. During the Maha Shivaratra festivities which occur in the month of (Magh) February, bhang is much more used. The beverage called gota is drunk by all classes of men. The use of this drug in connection with this period of festivity is not regarded as essential; but as Maha Shivaratra is kept as the greatest fast day in the year, men resort to the beverage to counteract the effects of fasting, and to stimulate personal activity and merry-making. The beverage is, however, used moderately, and is not unwholesome or injurious. It does not lead to the formation of the habit, as large numbers of people use the beverage only once in the year, and do not think of using it again until the following year.

33. The consumption of each of these drugs is regarded differently. While ganja smoking is looked upon as a disreputable habit, bhang drinking is not so regarded. The reason appears to be that the former habit is generally confined to the lower classes, idlers and labourers, while the latter is tolerated or countenanced by the better classes in which the well-to-do indulge not infrequently in drinking gota. As far as I can learn, the hemp plant is not worshipped in this part of the country. The use of majum, yakuti, is not held in much disrepute.

34. It would be a serious privation to habitual consumers to forego the consumption of ganja and bhang. When the habit is formed, it is difficult to break off. The consumer will always long for the narcotic and he will not readily bear the privation. The smoker must have his ganja and the drinking man his bhang. I have not been able to get any reliable information regarding the number of men who use the different preparations of the hemp plant; but from the sales of such of the preparations as are recorded by the various vendors in the city and the cantonment of Poona, it would appear that in every hundred consumers of the hemp plant narcotics, there are about 90·4 ganja smokers, 2·4 majum eaters, 1·9 yakuti eaters and as many shrikhand and gulkand eaters, and about 1·5 bhang drinking men. The total number of persons using ganja and its

perparations may be taken at about 2 (two) per cent. of the population of towns and cities in this district. It is not much used by the rural population.

35. It would not be feasible to prohibit the use of all the drugs. Ganja and bhang are used by people who do not use alcoholic stimulants. The deprivation by any prohibition of the production or sale of the drugs would be acutely felt by a population not accustomed to use opium or alcohol. It would be very difficult to check the use of the drug, which is not so baneful as alcohol. Any serious restriction on the production or sale would lead to illicit consumption, and much discontent among consumers would arise from a prohibition. I am not prepared to say that the discontent would amount to a political danger; but the experiment is not called for with the present limited use of the drug by only a small proportion of the population, and by certain classes of people who do not use alcohol. I am not prepared to say if ganja and bhang consumers would resort to the use of alcoholic stimulants or other narcotic drugs if deprived of ganja and bhang, as consumers of these drugs do not use alcohol or opium as a rule. The cultivation of the plant could, however, be restricted under a system of licenses.

36. I have no reason to think that alcohol is being substituted for any of these drugs. Alcohol is in disrepute, as far as is known, with the classes who use ganja.

37. Charas smoking does not prevail in this district to an extent sufficient to furnish a basis for comparing its effects with those of ganja smoking. I however learn that charas is much stronger than ganja in its effects.

38. Round ganja is not available in this part of the country. Flat ganja only is used for smoking, and sometimes the "chur." "Chur" is a mixture of leaves and bits of flowers detached from ganja, and as such is weaker than ganja. The effects are in degree, not in kind. Ganja produces greater intoxication than bhang.

39. I do not regard smoking of any of the hemp plant drugs as less injurious than drinking or eating the same. Ganja smoking is more intoxicating than eating the confections made from it. The reason is that in smoking a much larger quantity of ganja is used proportionately than in manufacturing the sweetmeats or confections of ganja. The latter, moreover, are mixed with ghi and other ingredients which reduce the strength of the narcotic. For the same reason and because bhang is much milder than ganja, the beverage prepared from it is also much less powerful than ganja smoking.

40. Ganja is said to be prescribed on account of its medicinal qualities by native, as also by European, medical practitioners. The drugs are also used in the treatment of cattle diseases (*vide* replies from Rao Bahadur, Assistant Surgeon (retired), Vishram Ramjee Gholley, Assistant Surgeon Bhikaji Amrit Chobhe, and Dr. Ganesh Krishna Garde, appended).

41. The moderate use of ganja and bhang is considered by Rao Bahadur Dr. Vishram Ramjee Gholley, Dr. Ganesh Krishna Garde and Dr. Bhikaji Amrit Chobhe as beneficial in their effects. But they do not regard the habitual use as beneficial. It is thus the occasional moderate use that they speak of.

(*a*) Ganja stimulates appetite for food and aids digestion to some extent.

(*b*) It gives staying-power under severe exertion and alleviates fatigue.

(*c*) It is not regarded as a febrifuge or preventive of disease in malarious and unhealthy tracts.

I am not in a position to make a reply to clause (*d*).

The poorer classes of Hindus and Muhammadans who are not within ready reach of medicinal preparations, use these drugs occasionally for exciting appetite or assisting digestion. Habitual consumers do not use them for such purposes. Bairagis, sadhus and fakirs, who travel long distances on pilgrimages, use the drugs habitually in order to obtain staying-power under exposure and to alleviate fatigue. Workmen and labourers also use the drugs to enable them to bear hard work better (*vide* opinions of Rao Bahadur Assistant Surgeon Vishram Ramjee Gholley, Assistant Surgeon Bhikaji Amrit Chobhe and Dr. Ganesh Krishna Garde, all Graduates in Medicine, appended).

42. I am not prepared to make a reply.

43. Moderate consumers of the drugs are found to be perfectly inoffensive to their neighbours. During a long official career, of which nearly thirty years have been passed as a Magistrate, I have not met with a single case of intoxication in the streets from ganja or bhang, or a prosecution for disorderly behaviour in public from intoxication from these drugs.

44. The immediate effect of the moderate use of any of the drugs on the habitual consumer is to produce slight exhilaration and pleasant sensations. It is refreshing. It does not allay hunger, but creates it. The effects last for about an hour. There are no after-effects of the moderate use of the drugs. The want of subsequent gratification produces longing for it.

45. The habitual moderate use of any of the drugs produces noxious effects, physical especially. Ganja smoking especially has bad effects. It weakens the constitution and emaciates the body. Its continued use impairs the digestion, though the first use of it excites appetite. It produces an obstinate cough, which results in bronchitis or asthma in old age. The moderate use does not cause dysentery. Its excessive use causes bodily infirmity. Indolent habits are induced by the habitual use of the drug, however moderate. I do not think the mental faculties are generally affected by moderate use, although in some instances men are overcome by the smoking of the drug and temporarily get out of their mind. Insanity, it is said, does not follow the moderate habitual use of the drug. Bhang drinking is said not to be baneful and not to be attended with any of the effects stated above.

46. The habitual excessive use of any of the drugs produces noxious effects and in an aggravated form. The constitution is completely impaired, resulting in emaciation of the body. The excessive ganja smoker is a deplorable object, troubled with nausea and headache, and presenting the appearance of extreme general debility. He has an anæmic appearance, always sickly and fretful. The digestion is affected; there is loss of appetite; dysentery, bronchitis or asthma results. The moral sense is impaired and habits of indolence supervene. The sexual passions are excited oftentimes, leading to excessive debauchery. The excessive use deadens the intellect and frequently produces insanity, first melancholia followed by dementia, which is the common form of insanity

induced by the excessive use of ganja. This form of insanity is temporary, and disappears after the habit is broken off. I have had no personal experience to enable me to say if insanes have ever confessed to the use of the hemp drugs.

47. The habitual moderate use of any of these drugs does not appear to be a hereditary habit, or to affect in any way the children of the moderate consumer.

48. I am not in a position to state if habitual excessive use of any of the drugs appears to be a hereditary habit, although the children of the excessive consumer are sickly.

49. The moderate use of the drugs is practised in some cases as an aphrodisiac; prostitutes are said to use them. The use for this purpose is more injurious than the use as an ordinary narcotic. The reason is that the system artificially stimulated for sexual gratification suffers. Excessive indulgence in the use of ganja is also said to cause impotence.

50. Excessive use is not practised as an aphrodisiac, as impotency is produced and the constitution is much impaired.

51. Bad characters do resort to stimulants, but I am not prepared to say that most of them use hemp drugs in preference to other stimulants. Alcoholic drinks seem to be much more frequently indulged in than the hemp drugs. I do not consider that the moderate use of any of the drugs incites to crime of any character.

52. Neither does the excessive use incite to crime as far as is known to me.

53. Excessive indulgence in any of the drugs does not lead to unpremeditated crime, as the excessive consumer is generally incapable, stupid, and inactive. I am not, however, able to say whether or not homicidal frenzy is caused.

54 and 55. I am not in a position to make a reply to this question.

56. The effects of hemp used in moderation and in excess is modified by admixture of condiments and "massalas." The drug is made much milder by such admixture. But if dhatura and poppy seed are mixed, the drug gets much stronger. "Dhatura" is rarely used in this part of the country as an admixture in preparations of the hemp drugs.

57. Charas is not used here, and by what I have written under answers 19, 20, 21 and 22 it will appear that ganja is used both for smoking and eating. It is not used for drinking; the effects of drinking and eating have been discussed above.

58. The system of excise administration in the Bombay Presidency has been fully described by the Honourable Mr. Mackenzie, Commissioner of Customs and Abkari, etc., in his letter No. 4752, dated 11th September 1893, to the Chief Secretary to Government. Reference is solicited to that report. The system is very simple and uniform. I think it serves the requirements of the Excise Administration and works well.

59. No experiments suggest themselves to me.

60. The taxation is fair, and the manufacture of narcotics from the hemp plant are well controlled. I do not think any improvement is called for. Though the cultivation of the hemp plant is unrestricted, I have not heard of illicit sales or manufacture of the drugs. The cultivation of the plant in this district is so very limited, that any restrictions other than those existing under the present system are not called for. The cultivation is noted and watched by the village officers and recorded in the village register. Moreover, the cultivator is not allowed to manufacture or sell the drugs without a permit. No further restrictions are therefore needed.

61. Charas is not produced in this part of the country.

62. There is no cultivation of the hemp plant for the production of bhang exclusively, as the ganja plant supplies what is known as bhang in this district.

63. The present system of both wholesale and retail vend of ganja and bhang works well and requires no modification.

64. None whatever.

65. In my opinion the taxation of ganja and bhang is reasonable with reference to each, and to alcoholic or other intoxicants. Ganja and bhang are taxed equally in this district, and I do not see any reason to disturb the arrangement.

66. I do not suggest different rates for taxing ganja and chur (otherwise called bhang).

67. The incidence per head is low. I do not see that any case in made out for altering of the present rate of taxation, which is quite unobjectionable. It is, however, clear that vendors make a large profit out of proportion to the taxes paid and expenses incurred. Appendix A will, I trust, be found useful and interesting as showing the net profits which a retail vendor makes out of his bargain.

68. There are no shops in this district where the drugs are consumed on the premises. The sweetened drugs, such as yakuti, majum, etc., and the drinks, such as bhang, though manufactured at shops licensed for the purpose, are not consumed on the premises. The consumers take home their purchases. It would not be advisable to permit consumption of the drugs on the shop premises, as it would probably lead to disorderly behaviour at the shops and in public.

69. The requirements of the people are considered before a shop is opened in any locality. The ganja farmer generally applies to the Collector of the district for permission to open a shop or shops in a locality. The Collector calls on the mamlatdar of the taluka in which the locality lies to report if such a shop is needed, and after such local enquiry as he deems necessary, the mamlatdar reports his opinion, which is generally accepted and acted on by the Collector.

70. I do not think the Bhor State, which is the only Native State comprised in this district, ever imports any quantity of the intoxicating drugs. I am not aware of any case of smuggling having occurred. Bhor does not grow hemp. There is in consequence no likelihood that it would get untaxed ganja and import it into this district. Duty is paid on all drugs consumed here. I am not aware of any illicit dealings in the manufacture or transport of the drug.

Appendix A.

In the course of enquiries made by me regarding matters connected with the sale of the hemp plant drugs, it has struck me that the profits which the farmers of the right of vending the drugs make are very large.

I shall endeavour briefly to state the accounts

of the ganja farmer, so that his profits may be readily ascertained.

In writing up the accounts I have closely followed the figures available for the Poona district.

Hemp Drugs Farmer's Account for 1891-92.

Credit.	Rs.	Debit.	Rs.
Price realised from the sale of 300 maunds of the hemp drugs at Rs. 120 per maund (the rate being Rs. 1-8-0 per lb. both for ganja and bhang)	36,000	Ganja and bhang (about 300 maunds) purchased throughout the year at the rate of Rs. 10 per maund including cartage, wastage, etc.	3,000
		Permit fees for transport	150
		Annual expenditure incurred in keeping 42 shops throughout the district at the rate of Rs. 7 per shop per mensem	3,600
		Sundries	250
		The amount of money paid for the license to manufacture and sell the hemp drugs	17,000
			24,000
		Net profit	12,000
Total	36,000	Total	36,000

20. *Evidence of* Khan Bahadur P. H. Dastur, *Parsi, Presidency Magistrate, Bombay.*

1. I must confess that I have had very few opportunities of obtaining information with regard to hemp drugs, as in the districts I have hitherto served, ganja and other products of the hemp plant are not much consumed, and I shall therefore confine my answers to questions 51 to 55 in relation to matters which have come to my knowledge in my magisterial capacity.

51. No, not within my experience, nor am I aware of any connection existing between the moderate use of these drugs and crime in general or of any special character.

52. But the excessive use of ganja and charas may lead to crime, for those addicted to these drugs remain constantly under a stupor and are unable to follow any honest calling and must necessarily resort to crime.

53. I am informed that excessive indulgence in charas makes a man violent in his temper and leads him to commit offences attended with violence. The Pathans in Bombay are well known as a turbulent class, and they are mostly habitual consumers of charas. I had lately a case before me in which a Marwari goldsmith under the influence of charas attacked a bailiff with a pair of tongs and behaved very excitedly in court. I am not aware of any case in which the habit has led to temporary homicidal frenzy.

54. No; but if a criminal addicted to these drugs intends to commit a crime, he feels himself powerless to act in the matter until he fortifies himself with the usual dose. The consumption of ganja generally makes a man timid; and he does not therefore commit premeditated acts of violence, but it is different with charas, which would certainly be used by a habitual consumer who intends to commit any act of violence.

55. Yes. I have had cases in Ahmedabad in which a gang was engaged in a conspiracy to rob unsuspecting travellers and other innocent persons. They invariably prepared a chillum containing ganja with dhatura seeds intermixed, and induced their victims to smoke the pipe and thus render themselves unconscious. Immediately afterwards the victim was robbed and the gang decamped with his goods. So far as I can form a judgment in the matter, I think complete stupefaction could not be induced by this drug without any admixture.

21. *Evidence of* Rao Bahadur Lallubhai Gordhandas, *Vania, Huzur Deputy Collector, Nasik.*

1. My employment as personal assistant to the Commissioner of Abkari from 1880 to 1887 has enabled me to become acquainted with the details of administration, taxation, and control. My information and my conclusions, so far as I have formed them, concerning the use and effects of the drugs, are derived from general observation. I do not profess to have had any special opportunities of obtaining information regarding the use and effects of the hemp drugs.

2. I may observe, at the outset, that the hemp drugs have not claimed much attention from the Government of Bombay, or from the people in the Bombay presidency, for the simple reason that their use is neither extensive, nor spreading, and that, such as it is, it has not been regarded as detrimental to health or morality. That these poor drugs should come to engage the serious and solemn consideration of a high Commission was not thought of by the staunchest advocates of temperance in this presidency.

One kind of ganja is used in this district, *viz.*, flat ganja. The flower tops are used for smoking and are called ganja. The dry twigs and seeds which become detached and form a broken mass are sold as bhang. Charas is not known in these parts.

13. No restriction is imposed by Government on the cultivation of the hemp plant.

14. Charas is not prepared in this district. Ganja is manufactured to a small extent in the district, but the bulk of the drug sold is imported The flower tops are sold as ganja, and the broken mass is sold as bhang.

15. I believe that the only preparation which ganja requires before being smoked is that it is washed with water and then mixed with a little tobacco.

The preparation of bhang for drinking is said to be as follows. It is warmed in an earthen plate placed over a slow fire until it begins to smell. It is then soaked in water for about half an hour. It is then placed in a piece of cloth, which is dipped in water and rubbed with the fingers, and the water is squeezed out. This process is repeated till the water squeezed out appears to be taintless. The washed bhang is then pounded with a few grains of pepper. Those that can afford it mix with it other ingredients (see answer to query 29). The pounded mass is diluted in water, and the liquid is strained through a piece of cloth three or four times, the refuse being thrown away, and the liquid so prepared is drunk as bhang.

Bhang is also boiled in ghi, which is mixed with certain ingredients to make pak, or majum, or yakuti. Each seller has his special recipe for these preparations. Bhang is also mixed with gulkand (conserve of roses).

16. Bhang is usually prepared by people in their own houses; but in Bombay there are bhang shops wherein the pounded mass is kept ready for sale or is diluted, and the liquid, after being strained, is offered for drink.

17. I believe no particular classes of people are employed on this business.

18. Ganja and bhang are said to deteriorate by keeping and to lose their effect in time. The time will vary according to the state of the weather and the degree of care with which they may be kept.

19. To my knowledge, ganja is used only for smoking; bhang is used for drinking, and is also used in making pak, yakuti, majum, and gulkand; charas is not used in this district at all.

20. Ganja is smoked invariably by bairagis and those who revere and associate with them. It is used by a comparatively small proportion of the lower classes of the population, a smoker of ganja being looked upon as a disreputable person.

The use of bhang is almost unknown in the Deccan. The preparations of bhang, such as pak, yakuti, majum and gulkand are used by a few persons of the middle classes.

25. There is not the slightest indication that the use of the drugs is on the increase.

26. There could be only two classes, (*a*) and (*b*); not the third and fourth, (*c*) and (*d*). The majority of consumers may be taken to be moderate consumers.

27. See answer to query 20.

28. The quantities will vary according to the habit of each consumer, the frequency with which he indulges in the drug daily, and the degree of intoxicating power of the drug used.

29. Almonds, cardamoms, pepper and sugar are usually pounded and mixed with bhang. Those who like and can afford may also mix with bhang sweet fennel, dried rose buds, poppy seeds, conserve of roses, rose water, seeds of various fruits, saffron, musk, milk, milk cream, etc., etc. Dhatura may at times be mixed with bhang when common bhang ceases to give an habitual drinker sufficient intoxication.

30. An habitual drinker of bhang drinks it at home, either alone or in company of friends, if any should join him. A man leaves off bhang generally in old age; but a ganja smoker continues to smoke it till death. Females and children are not known to use the drugs to any great number.

31. The habit may be formed and may be broken off easily. A moderate consumer may develop into an excessive consumer; but the result cannot be said to be due to any inherent tendency in the drugs.

32. I am not aware of any such custom.

33. Ganja smoking is regarded as disreputable. Excessive drinkers of bhang are also looked down on with scorn.

34. Bairagis would regard it as a serious privation to forego the consumption of ganja. It would be a deprivation of an innocent enjoyment to consumers of bhang.

35. (*a*) Feasible, but not at all advisable or necessary.

(*b*) Yes, if it could be obtained.

(*c*) By stopping cultivation and importation.

(*d*) Certainly.

(*e*) Not quite.

(*f*) Yes.

36. Indulgence in alcohol is now-a-days considered to be less disreputable than it was before the spread of English education and Western ideas, which have made very great strides during the last thirty years. It is probable that material prosperity among the lower classes would bring in its train a taste for the more expensive and fashionable alcohol in place of the poor hemp drugs.

39. Excessive smoking of ganja is more injurious than excessive drinking of bhang. A moderate use of either is said to be not injurious.

41. (*a*) Bhang is.

(*b*) Ganja is.

(*c*) Can't say.

I refer to both moderate habitual and moderate occasional use.

43. Quite.

44. (*b*) It is said to be so.

(*c*) Yes.

(*d*) Ganja is said to do.

(*e*) Bhang is said to create appetite.

(*f*) About six hours.

(*g*) A little depression.

(*h*) No.

45. None of these effects are known to be produced by habitual moderate use of ganja or bhang. The answers as regards habitual excessive use are—

(*b*) Yes, if the consumer does not get sufficient nourishment.

(*c*) Ganja is said to do this to a certain extent.

(*e*) It induces laziness, but not habits of immorality or debauchery.

47 and 48. Not at all.

49. (*a*) To a certain extent.

(*b*) Don't know.

(*c*) Not at all.

(*d*) I have not heard of any such consequence.

51. I do not think that moderate use has any connection with crime.

52. Even excessive use is not said to induce criminal tendency.

53. Not necessarily. No.

54. I don't think.

55. The hemp drug by itself would not stupefy completely.

58. I think the present system, which is designed with the object of raising a moderate revenue from the consumption of the drugs at least expense to Government and least inconvenience to consumers, is working well. Any improvement in the direction of tightening the control and restricting the production, manufacture, and sale of the drugs would cause needless harassment without any counterbalancing advantage.

60. No control is exercised on the production of the drugs, and none would appear to be necessary.

61. Charas is not produced.

62. *Vide* answer to query 60.

63. I have no objection to urge against the present system of wholesale and retail vend of ganja and bhang.

64. None.

65. There is no definite rate of taxation, the right of vend being sold annually to the highest bidder. The incidence of taxation, therefore, varies in different districts, and in the same district in different years. But, upon the whole, I think it is reasonable.

66. No; such different rates would be unworkable, except at immense cost.

67. No.

68. None in this district.

69. No.

70. There are no facts regarding the importation or smuggling of hemp drugs from Native States. Under the farming system, there is no room for evasion of duty.

Oral evidence.

Question 20.—The use of bhang in the Deccan is much less than in Gujarat. There is no bhang in this presidency. It is only broken bits of ganja. It is the unsmokable ganja that is bhang.

Question 29.—Dhatura seeds are mixed with bhang by excessive drinkers sometimes to increase intoxication. This is what I am told. This admixture is not to my knowledge made in the shops. I do not know of dhatura being smoked with ganja.

Question 59.—I think that those who smoke ganja are the dregs of society, the beggar class. If any attempt were made to improve them, and deny them that drug, they might take to crime so as to get it if it were dearer. Bhang is consumed by the better classes when consumed at all. I think that the drugs have a bad effect only when the consumers have insufficient food. I think people who want intoxicants will get it somehow. I do not think people will be better off if they are compelled to take to liquor. Its physical effects are worse than those of hemp drugs. Opium-eating would be preferable to ganja smoking, but opium smoking worse. I do not think that the effects of hemp drugs call for increased taxation, though increase of revenue may be desirable. This would be a question to be considered in reference to other provinces. Ganja is largely imported into the province. In Nasik it is entirely imported from outside, *i.e.*, from Ahmednagar in the presidency, and the Central Provinces outside. Bhang from the Punjab is, I am told, obtainable in Bombay. Statistics about imports are easily obtainable. I only state my impressions. I am quite unable to give any estimate of production. I have never had my attention drawn to this matter. The figures about consumption in the Excise Report are given by contractors, whose interest it is to understate consumption. But they may be generally accepted.

I know of no special reasons why taxation should not be raised in Bombay. I do not know the figures for other provinces, or why there should be different rates of taxation.

The bonded warehouse system would be very expensive unless cultivation is concentrated. There would be no objection to stop detached cultivation with a view to concentration, provided the supply is kept up. I can make no recommendation as to what districts should be chosen. I have never considered the question of cultivation or the statistics.

I do not think any change in the maximum of 40 tolas need be made unless the present system is changed, for there can be no evasion of duty under the present system. It would only be inconvenient to certain consumers to have a lower maximum. There is no scope in the present system for greatly increasing taxation. If this is necessary, we should have to impose a direct tax as well as the indirect, and have the mixed system.

I am not aware that ganja is smoked on the premises anywhere. I object to it, because it gets consumers together, attracts people to the place, would appear to countenance the habit, and would thus tend to increase consumption.

I have not heard of any adulteration of the drugs as sold in the presidency.

Question 66.—As a matter of fact only one kind of ganja is used in this presidency. I believe so. I have no practical knowledge of that. I have not travelled in the districts so as to see the ganja that is sold.

Question 59.—I could name a dozen cases in which young men have died from the habit of liquor; but I know no such case in regard to hemp drugs. These cases are Hindus.

---

22. *Evidence of* Rao Bahadur Narayan Ganesh Deshpande, *Brahmin, Deputy Collector, Belgaum.*

1. I served in Sind, where these drugs are very commonly used, and also served in Ahmednagar, where this plant is grown.

2. In Sind these definitions apply literally. But in this district bhang and charas, as defined here, are not imported or even known. Flat ganja is alone imported and is known.

18. Ganja and bhang lose their qualities by

keeping for more than a year. If properly packed and secured from exposure to heat and dampness, they will keep well for about 18 months or two years. Charas can keep any length of time.

19. Charas is only smoked. Ganja is eaten like bhang made into "gota" in this district for want of bhang.

20. In this district fakirs, bairagis, gosavis, and other mendicants use ganja, as also dowries and other itinerant classes. In higher classes the use of this drug is very rare.

21. Flat ganja alone is imported.

25. It is difficult to answer this question. But looking to the quantity of ganja imported from year to year, it would appear that consumption is stationary.

26. There are no statistics available.

27. Habitually excessive smokers are from the mendicant classes, such as fakirs, bairagis and gosavis.

Habitual moderate consumers come from all classes, particularly from the lower strata. Occasional moderate consumers can be traced to all castes, not excluding Brahmins and Lingayets.

I believe there are no occasional excessive consumers. Fakirs, bairagis, gosavis, dowries, and similar mendicant classes are initiated as soon as they enter mendicant orders, or when they attain the age of puberty. Bairagi boys are initiated at even the early age of 12 and 14. In other classes this habit is contracted on account of bad company, and is seldom acquired for medicinal purposes.

28. It is difficult to say what class of consumers may be called habitual moderate consumers. There are persons who smoke only once in company with six or eight persons. One or half a tola is prepared and filled into a pipe, and is smoked by six or eight persons together in the afternoon once a day, each person paying the day's cost by turns. There are others who smoke two or three times a day and require a tola, and they are considered moderate consumers. The excessive consumers are persons who remain always under the influence of the drug. Such persons want about two to four tolas of ganja every day. They cannot do without one tola. This class of consumers is limited to a portion of itinerant mendicants who get the necessaries of life without trouble. I should think that quarter tola is the allowance of an average moderate consumer, and two tolas is that of an excessive one. The cost of one tola by retail is two piee. Wholesale prices are annas 12 to Re. 1 in the British districts and six to twelve annas in Native States.

29. Nothing is mixed with ganja ordinarily except tobacco. It is said that exceptionally dhatura, kutchala and aconite are used in very small quantities. My informants have not seen instances of this kind.

When gota is made, undermentioned articles are used :—

(1) Sugar, (2) milk, (3) water, (4) poppy seed, (5) coriander, (6) dried rose buds, (7) anise seeds, (8) cucumber seed, (9) almonds, (10) jaiphal, (11) cardamom, (12) cocoanut or its juice, (13) black pepper.

Exceptionally— (14) kulpa, (15) kalubij, (16) aconite, (17) dhatura, (18) kutchala, (19) arsenic.

These articles are used both to make the drink palatable or tasteful and to increase intoxication.

No bhang massala is sold in these parts like Upper India.

30. Consumers of these drugs are very fond of company. They will indulge alone when they cannot afford the expense or cannot get company. It is said larger the circle, greater the enjoyment. The consumers are very obliging to each other in this respect.

This vice is confined to the male sex, and is generally acquired after the age of 20. The bairagis are said to initiate their children at the age of 12 to 14, and women are free, except bairagis of abandoned character.

31. The habit of smoking tobacco is the preliminary step to acquire this habit. No length of time is required in forming this habit; a week or a fortnight is quite sufficient. A man is allowed to smoke the exhausted pipe or use small quantities at first.

The drug itself does not give a craving for increase of its use, but bad company and want of occupation lead to excessive use. On the first occasion the head is immediately affected and the smoker sometimes becomes insensible, but with habit the effect is lessened or reduced to a minimum. The habit is not difficult to break off; more moderate smokers do not feel the want of it, while habitual moderate ones feel want of it at their usual times and feel their stomach windy, and the excessive smokers sometimes get dysentery, and, besides feeling very uneasy, are subject to pains in the limbs and show most unwillingness to work.

32. I am told that some people think it necessary to offer a drink of bhang to Mahadev, and then drink it themselves on the *Shivaratri*. Dowries have a custom of offering a ball made of ganja and ganja drink to their family god Sonkarshid or Kalbhairav (different names of Mahadev) in the month of Chaitra; and then eat or drink the same themselves. They have also a custom of vowing that if the god be pleased to give them the desired thing, they would give ganja to a certain number of dowries to smoke or to drink. Patvegars, who are said to be Kshatris, serve in small quantities some preparation of ganja on the anniversary of their fathers called "paksha" to all persons called to dinner.

33. The use of these drugs is considered as disreputable, though it does not render one liable to lose his caste. Its use is considered as a vice. A man who is addicted to it is looked down upon as a low man. He avoids exposure, and will conceal his habit as much as possible. All this is due to the intoxicating effect of the drugs. In castes and sects where the use of these drugs is quite common or is considered necessary, there is no public opinion about it.

This plant is not worshipped.

34. It is thought that to habitual smokers, such as fakirs, bairagis, gosavis, and itinerant classes, who are exposed to inclemencies of the climate, it will be a privation to forego the use.

35. The effective way is to stop the cultivation of the plant in British districts and also in the Native States, and to prevent imports, as is done in the case of opium. The drug will be consumed illicitly, as long as the persons now using the drug live or are not weaned from the habit. Some discontent will be caused among the consumers, but it will never in these parts develop into a political danger, as the discontented consumers are the dregs of the society, and their discontent

will not influence good people, who form the largest majority. Nor will the stopping of this drug lead to the use of alcoholic drinks.

36. I have seen a person weaned of the habit of drinking liquor by the moderate use of bhang.

39. Smoking is admittedly more injurious than drinking or eating. Smoking affects the lungs and brain more immediately and directly than the latter.

40. Yes; in the case of dysentery bhang is prescribed. It is used as tonic to the convalescent. Garda is administered to horses and cattle. In the ganja imported into this district, a quantity of dust or fine powder, most probably of leaves and flowers, is mixed. When separated, it forms the "garda," which also contains the seeds.

41. (*a*) Bhang taken in small quantities is good for digestion and to stimulate appetite. Ganja does the same with greater force.

(*b*) There is staying-power as far as the exposure is concerned. A ganja smoker is not considered to be able to work much. Fatigue is alleviated by a smoke of ganja, as it induces sleep.

(*c*) It is said that ganja smoking and bhang eating serve to prevent fever more or less.

(*d*) Smoking is said to concentrate attention or rather prevent distraction. It is why some singers and musicians have a smoke before they can play their best.

These effects are observed in the moderate habitual and moderate occasional use.

42. Moderate use of bhang is useful as well as harmless, but I cannot say so of ganja smoking, which is injurious even to one who is well fed. Smokers, however, have a saying as follows.* It is, I believe, meant more to ensure the cleaning of the ganja smoked than to express its qualities and to point out bad effects.

43. Yes, ganja smokers are sometimes inclined to quarrel when under intoxication. Occasional consumers are loquacious and divulge secrets of others and even of their own.

44. The immediate effect is to drown all anxiety, to remove mental depression, and to exhilarate the spirits. A drink of bhang not much spiced and sweetened is refreshing. Such a drink does not cause intoxication, so to speak, beyond the raising up of spirits. Hunger is not allayed; on the contrary, it is very slightly stimulated. The effect lasts from two to six hours, the length of time depending on the state of health and the quantity used. No after-effects. Want of gratification does produce longing as also uneasiness, and there is an unwillingness to work and a disposition to take offence.

45. Smoking affects physically and mentally, but it is doubtful whether it has any effect on one's morality. It affects the lungs and the brain and impairs the constitution. The effects are slow in the case of persons who live well. Indigestion and loss of appetite follow weakness of body, brain, and lungs.

It is known to cause asthma and bronchitis, but is said not to cause dysentery. It does not produce habits of debauchery or immorality, but induces habits of laziness.

Habitual moderate use only blunts the intellect. It is not said to cause insanity.

46. In the case of habitual excessive use the abovementioned effects appear earlier and with greater severity. An ill-fed excessive consumer can be easily distinguished by his sunken eyes, black lips, pale face, and emaciated body. Insanity, both permanent and temporary, and several mental affections, are said to result from excessive use.

49. It is said to be so. It is not used by prostitutes for this purpose. Excessive use leads to impotence, I am told.

51. Use of these drugs, as far as I know, has no connection with crime. I do not know whether a large proportion of bad characters use this drug. Some of them do so, not because they have to commit crime, but because they are bad characters and are addicted to vices.

52. I am told that excessive consumers of this drug are unfit to commit serious crime, because they are constantly under its influence. The intoxication caused by the drug is said to cause nervous depression or inactivity.

53. I have not heard of a single case of suicide nor of unpremeditated crime.

54. No, as far as I know.

55. I believe this is done sometimes, but I do not remember any instances. A person unaccustomed to the use of this drug can be completely stupefied by an over-dose of this drug.

58. The present system is working well. I have no suggestions to make for its improvement.

62. In my humble opinion it is unnecessary to control the cultivation and the preparation of these drugs.

63. and 64. None.

65. In my humble opinion the tax on ganja is not sufficiently high to check its consumption or to prevent increase of consumers and consumption. Bhang need not be as highly taxed as ganja. Manufacture and import of bhang must be encouraged with the object of preventing the people from using ganja for eating and drinking. Ganja is so used because bhang is not imported. As compared with liquor, ganja is exceedingly cheap, and a reasonable increase in its taxation will not lead to the use of alcohol.

68. None in this district.

69. No.

70. There is much smuggling from the Native States, where the ganja is had much cheaper than in this district. This is due to the fact that sales of ganja farms there are not so honestly and carefully made as here.

---

23. *Evidence of* Rao Bahadur K. M. Thatte, *District Deputy Collector, Nasik.*

1. In the districts in which I have served hemp drugs are not extensively consumed, nor consumed in a manner to have pernicious effects on society at large.

51. My answer to this question is in the negative.

Considering the different classes of bad characters which have come under my observation as

* Vernacular saying not printed.

member of the community in general, and as a magistrate in particular, in the several districts in which I have had to move in my official career during the last 27 years, I can safely assert that the habitual moderate consumers of any of these drugs do not form even the smallest proportion of such bad characters, and that the moderate use of such drugs has not been found in any way connected with the commission of crime, whether of a general or special character. The habitual moderate consumer uses the drugs under a certain religious belief of a supposed spiritual benefit therefrom, but more for the temporary beneficial effects which a moderate use of them produces, namely, the staying-power which it gives under great exertion, the relief which it affords from fatigue and cares and anxieties, and also the indirect assistance which it is supposed to render as a food digestive. The habitual moderate consumer is, therefore, necessarily an innocent man, and has no object or motive to commit crimes of any description, and so does not fall under or is not included in the class of bad characters.

52 and 53. My answer to these two questions is the same as that given to the preceding question, but is qualified with this observation, that the habitual excessive use of these drugs necessarily creates noxious effects on the consumer, not only physically and mentally, but also morally, and the consumer is, in course of time, so much affected by their extreme use that it leads him sometimes to commit unpremeditated crimes in the same manner as an excessive use of liquor, opium, and other narcotic drugs, but certainly not to a crime of a violent nature. But generally the man who is addicted to excessive indulgence in these drugs becomes a victim of his own folly.

No case has come to my notice or under my knowledge in which an excessive indulgence in these drugs had led to temporary homicidal frenzy.

54 and 55. My answer to these questions is also severally in the negative. I have not found, in the course of my experience, gained by me as a visitor of criminal jails in different districts during the period of about 27 years as to the conduct and habits of criminals, that any such drugs are used by them to fortify themselves to commit a premeditated act of violence or other crime, or to induce their victims to partake of the same to get them stupefied in order to further their designs.

---

24. *Evidence of* Rao Bahadur Bhimbhai Kirpa Ram, *Brahmin, Huzur Deputy Collector of Surat.*

1. A copy of my paper on the narcotics and stimulants of Gujarat which was written for the Bombay Gazetteer is annexed.* During my thirty years' service in the Revenue and Agricultural Department of the Bombay Presidency, I had opportunities to study the question from different points of view. My remarks are confined to Gujarat.

2. Three preparations from hemp, *Cannabis indica, viz.*, (1) bhang, sabji or mayapani; (2) yakuti, and (3) ganja are used in Gujarat. Charas is neither manufactured nor used.

(1) *Bhang, sabji* or *mayapani* is made from the flower leaves and the seed of the plant. These are first baked over a fire, then well washed in cold water, and ground very fine, the intoxicating power depending to a considerable extent on the fineness of the powder. According to the taste and means of the consumer, dry rose leaves, almonds, cardamoms, pepper and other spices are pounded and mixed with the powder. The whole is then again ground, mixed with water, or sometimes with milk sweetened with sugar, and strained through a cloth. The preparation is now ready to be drunk. Bhang is a very cheap luxury, one-sixteenth of a pound is enough to last an ordinary man for three days, costing only half penny or four pies. A poor man, as a rule, drinks his bhang mixed only with black pepper; on festivals and holidays many kinds of spices are added, and in this way the mixture becomes costly. A few Parsis and Musalmans drink bhang, but it is chiefly consumed by the higher classes of Hindus, *viz.*, Brahmins, Banias, Kayasths, Sonis, and others who drink no other intoxicating liquor and do not eat opium. None of the preparations of hemp are taken by women except low-caste prostitutes. In the hot season and throughout the year on holidays and festivals bhang is very generally drunk, but only a few people take it regularly. As a rule it is drunk in the afternoon before sunset. In small quantities it is cooling and slightly intoxicating, causing at the same time a keen feeling of hunger. Under its influence goldsmiths and jewellers are proverbially clever; it soothes rather than stimulates the brain; its appetising powers are of great value to begging Brahmins, who under its influence can, at a caste feast, eat enough to last them for 24 hours.

(2) *Yakuti* or *majum* is bhang boiled in clarified butter. The clarified butter is flavoured with sugar and spices and is often coloured with vermillion and saffron. As a conserve, yakuti is generally eaten before sunset, chiefly by well-to-do Hindus and Musalmans. A man who drinks bhang may also take yakuti and smoke ganja. Yakuti is an expensive article, and when regularly taken costs from Rs. 2 to Rs. 3 a month. This drug is prepared by professional dealers called majum-walas, chiefly Banias by caste. It is also made by Hindu physicians.

(3) *Ganja* is the dried hemp plant which has flowered and from which the resin has not been removed. This is generally brought in its rough state and made ready by the consumer. To prepare the ganja for smoking, a small quantity is taken on the palm of the hand, and the seed, if the flower contains any, is removed. The ganja is then washed four or five times, dried, and mixed with tobacco. The classes chiefly addicted to smoking ganja are religious mendicants, the lower order of Brahmins, and a few artizans. As a rule ganja smokers are found at shrines or temples and mosques. But some of them resort to special houses called Akhada, where bhang and ganja are prepared. Men addicted to the practice keep taking whiffs of ganja about every half hour. Its effects are sudden and strong. Three or four pulls at a ganja pipe will prostrate a man not accustomed to smoke it. Especially among the weakly and ill-fed the use of ganja is said to harm the mind and nerves and even in some cases to cause death. Ganja trodden under foot is generally used.

*Not printed.

3. Bhang is cultivated to a very small extent in Surat and Broach (about thirty-five acres in all). The plant does not grow spontaneously; it is cultivated like cereals, *i.e.*, jawari and bajri, and harvested in November and February, as is the case with kharif and rabi crops. Alluvial land is preferable; no special care or attention is needed. Plants are also found here and there in the compounds of temples. The Surat cultivators collect only bhang, *i.e.*, leaves and seeds from the plant. Some of the Broach cultivators understand the process of collecting bhang and ganja from the plant. The plants, when ready, are uprooted, made into bundles, and left to dry for three or four days. The tops of ganja kalis are picked up with hand, the plants are thrashed, and the leaves and fine little branches are collected. The mixture of leaves, fine little branches, and seeds from the ganja tops is known by the name of bhang. The plants are known as *nar* (male) and *mada* (female); wild hemp grows in Palanpur.

8. Bhang cultivation is decreasing; profits small compared with trouble of obtaining licenses and finding purchaser.

9. Alluvial land is preferable. Method of cultivation same as that practised in respect to cereals.

10. Belong to the ordinary cultivating classes.

11. As far as I know, ganja plants are not raised from the seed of wild hemp.

12. As far as I know, wild hemp is not cultivated.

13. The cultivator has to obtain a license to cultivate hemp plant; no duty is levied for the grant of permit. The cultivator is bound to sell his produce to licensed farmers only.

14 to 16. Please see answer No. 2.

17. Please see answer No. 2. Bhang and ganja are prepared by the consumers themselves. Yakuti is prepared by experts.

18. Both bhang and ganja deteriorate, if they are kept longer than four or five months. Yakuti also becomes ineffective and tasteless after two or three months.

19. Ganja is used for smoking as described in answer No. 2. Some people use ganja leaves for eating with the object of producing its effect without smoking ganja in a pipe.

20. Ganja is smoked by mendicants and low-class Brahmins; a few artizans also smoke. Ganja smoking is confined chiefly to towns and cities. Village people seldom smoke ganja. Hardly *one* per cent. of the male adult population smokes ganja. This figure is arrived at after due consideration of the material and economic conditions of the several classes of people.

21. Ganja trodden under foot is generally used.

23. Bhang is not used for smoking.

24. Bhang is generally drunk. To save time habitual consumers sometimes eat bhang. Bhang is drunk by well-to-do Hindus, a few Musalmans and Parsis. The habitual consumers are chiefly goldsmiths, jewellers and Brahmin mendicants. Some village people drink bhang. Bhang drinkers may be put at *two* per cent.

25. The use of bhang *is decreasing among the higher classes. Liquor has taken its place.* The use of ganja is stationary among the mendicants and fakirs who do not take to liquor drinking. Yakuti consumers are very few. Five in a thousand.

26.

	Bhang.	Yakuti.	Ganja.
(*a*) Habitual moderate consumers	70	100	60
(*b*) Habitual excessive consumers	5	...	40
(*c*) Occasional moderate consumers	25	...	...
(*d*) Occasional excessive consumers	...	...	...
	100	100	100

Bhang is drunk in small dose *occasionally* by persons not accustomed to it. Ganja is consumed by those who are habituated to it; occasional consumers—classification is not applicable to ganja.

Bhang consumers are generally high class Hindus, and in many cases well-to-do. Ganja smokers are mendicants and poor, living chiefly on alms.

	Bhang. Tolas.	Bhang. Cost.	Ganja. Tolas.	Ganja. Cost.
28. (*a*) Habitual moderate consumers.	2	¼ anna	4	1½ annas.
(*b*) Habitual excessive consumers.	6-8	1 anna	10-12	4 annas.

The above figures represent the allowance of first class moderate and excessive consumers respectively. The ordinary expenses of moderate consumers vary from $\frac{1}{12}$ anna to $\frac{1}{10}$ in the case of a bhang consumer, and from ½ anna to one anna in the case of a ganja consumer.

29. It is the practice with some excessive smokers to mix dhatura and opium with ganja, the object being to intensify the effect of intoxication.

Bhang massala consists of black pepper, almonds, poppy seeds, sugar, dried rose flower and pistachio seeds.

30. Bhang is drunk openly; no dishonor is attached to it; occasional drinkers do not drink in solitude. Moderate and excessive habitual consumers drink singly, if there is no company. Mendicants smoke ganja publicly, though shame is attached to it. A few prostitutes and low caste women drink bhang.

31. The habit is easily formed; it is not difficult to break off. But the mendicants will not give up ganja smoking. In the case of ganja, there is a tendency for the moderate habit to develop into the excessive.

32. Bhang is the favourite drink of the followers of the Shiva sect. On Shivaratri and other days connected with the worship of Shiva (Mahadev) bhang is religiously used by the devotees. This practice does not lead to the formation of habit. Ganja does not form an article of worship.

33. No dishonour attaches to a moderate bhang drinker; bhang is drunk openly either singly or in company; excessive bhang drinkers are taunted and ridiculed; ganja smokers are held low in the estimation of the high class Hindus, but they are not hated or despised as liquor drinkers, who are regarded as very low in point of social position. Liquor drinking is against religion, so it is generally in disrepute. Bhang and ganja do not pollute the consumer from a religious point of view.

34. Bhang drinkers generally belong to respectable and orderly classes of the population; ganja smokers are chiefly mendicants, without homes or families in many cases. Any attempt to restrict the use of ganja by means of heavy duties will be looked upon by the ganja smokers as a great

hardship. The existing system is good and satisfactory. The sale and transport are brought under control; accounts are kept by the licensed retailers; the abkari and revenue officers examine these accounts from time to time. Bhang is not in any way injurious. Ganja is injurious, if taken in large quantity. Ganja-smokers do not form part of the working or useful classes of the population; no large revenue can be raised from the farm of hemp plant produce, or by raising the duty on bhang and ganja. From a humanity point of view interference is unnecessary. The loss of lives is very small, even if it is conceded that the lives of fakirs and mendicants should be saved. Alcohol has been the curse of the country since the past few years. I am strongly of opinion that any change in the existing system is *politically* unwise and unnecessary. The evil is so insignificant compared with the political danger in these days of agitation that the bhang and ganja subject should be left untouched. I will state my reasons in full before the Commission.

40. Ganja-smoking is recommended in the case of asthma and diseases of lung. It is also given to buffaloes with the object of causing an increased flow of milk. Bhang leaves are also used for fumigation, cases of piles, fistula of anus.

41. A moderate use of bhang is beneficial; it creates appetite: it alleviates the effects of fatigue; its effects are of a mild exhilarant character and free from any tendency to commit violence or self-destruction. Excessive bhang-drinkers do not suffer in health.

A moderate use of ganja is not harmful; it is a febrifuge in malarious districts: it enables the consumer to keep up the vital powers. Excessive ganja-smokers suffer in health if they do not get nourishing food. Insanity, impotency and consumption are the results of excessive smoking. Excessive use produces derangement of the mental power. It has the effect of impairing the moral sense.

43. Most decidedly.

44. *Bhang effects.*—Succession of thoughts in the case of occasional drinkers, concentration and cheerfulness in the case of moderate daily drinkers, refreshing, produce cooling sensation, create appetite.

Ganja effects.—Moderate smokers do their work well; produce little intoxication, last for a very short time. Excessive ganja-smokers are weak and ill-fed. Excessive use of ganja destroys appetite, undermines the vital powers, and leads to insanity in many cases.

49. A moderate use of bhang is made by prostitutes as an aphrodisiac.

51. The use of bhang and ganja is harmless from a criminal point of view.

53 and 54. I think not.

55. No.

56. Already answered.

58. I am perfectly acquainted with the system; it works well as far as Gujarat is concerned.

59. No improvement is necessary.

60. No change is needed.

65 to 67. I think no attempt should be made to raise revenue. According to the accounts of the farmer, the total consumption in the Surat district in 1892-93 was as shewn below:—

	B. Maunds.
Ganja	103
Bhang	45

The revenue in the same year amounted to Rs. 2,800. Any attempt to raise revenue from this source will be regarded as a blunder by right-thinking people. The increase will be very small and the excitement and ill feeling among the lower classes will unnecessarily be created without any corresponding advantage. If Rs. 10 are levied on a maund, the total revenue in the Surat district will be about Rs. 1,480. If bhang and ganja are made as dear as liquor, the object will not be served, and people will take to drinking liquor so far as their means will permit.

68. There are very few houses or shops. The consumers do not behave badly. The houses are not in any way objectionable.

69. People are not consulted. I do not think it necessary to do so. I am of opinion that the Municipality of the town should be consulted in respect to liquor and bhang and ganja shops.

Oral evidence.

Question 2.—(3) An Akhada is a kind of private club in the house of a private smoker of ganja where the people go to smoke ganja. A man going there must ordinarily be known to the owner of the house.

Question 34.—In Gujarat Kunbis and Kolis are the principal agricultural classes. They eat opium. Therefore very few cultivators in Gujarat take ganja. Again in Gujarat and Broach, liquor prevails; and liquor drinkers do not take ganja or bhang. Only in cities is there any appreciable consumption by cultivators in Gujarat. As to the labouring classes, there is no consumption among skilled labourers, and the lower labouring classes as a rule take liquor. Artizans then do not as a rule take hemp drugs. The consumption of hemp drugs in the whole of Gujarat is very inconsiderable, especially ganja. The evil effects on excessive ganja-smokers are appreciable, but only in excessive cases. These are very few; that is to say, the extreme cases in which excessive consumption has injurious effects are very few. I have seen occasionally a man ruined by ganja; not any one hopelessly ruined and unfit for every thing. These are found in cities and very rarely in taluka towns. One in fifty thousand there may be, but not more. If I examined all the Akhadas, I do not think I could find more than one or two. I do not believe that six or seven social wrecks could be found due to ganja in any taluka town in Surat. You might find two or three in a place like Barsa. We find more such cases in respect to liquor. A true social wreck cannot be found, except lean emaciated fakirs who smoke ganja. They never had anything to lose and can hardly be said to be wrecks.

As to their injurious effects on the people, I think that young men have died from liquor-drinking and that the effects of ganja and hemp are, compared with this, insignificant. The liquor habit is increasing among our people. Not so the use of drugs. There is no reaction here against liquor. I think that if the lower classes took to drugs instead of liquor, it would be to their advantage, especially bhang. Bhang is admittedly harmless, even in excess. Opium-eating is better than ganja-smoking; and opium-smoking is worse than ganja.

Question 44.—Such work as moderate smokers have to do, they do well. Moderate smoking is harmless if accompanied with proper food. It assists hard work.

I think seven out of every ten extremely exces-

sive smokers would become insane; not fit to go to the Colaba Asylum, but creatures that are unfit for anything except smoking. I have seen such in temples, fakirs and such people, in temples all day smoking with red eyes. None of them insane such as you would send to the asylum. I have not seen an insane person from hemp drugs. I do not know, of course, how lunatic asylum statistics are prepared. I do not think there is a popular belief that ganja makes a man mad, but that it makes him thus indifferent to the affairs of life and taking to smoking at the temple. I am sure that there is no popular belief that ganja is responsible for a large proportion of the lunatics in asylums. I speak of Gujarat.

Question 59.—I think that drugs are cheaper than liquor. If they are made equally dear, then people will take to liquor, which is an objection. Also I think that for political and religious reasons the taxation of drugs should not be raised. I would not, however, abolish the present taxes, to which the people have become accustomed. The hold that the ascetics, sadhus and fakirs have on the people cannot be overrated in its political connection with this question. It would bring agitation(at present confined to the higher classes) down to the lower classes, who follow these sadhus completely. The sadhus and fakirs use the drugs religiously.

---

25. *Evidence of* Rao Bahadur Vyankatesh Bapuji Wadekar, *Deputy Collector, Ahmednagar.*

1. My duty requires me to examine ganja and bhang shops. It also brings me sometimes into contact with men cultivating ganja.

2. Except round ganja all these definitions may be accepted for this province. These products are locally known by the names here given in this question.

3. I have no knowledge of the districts where it spontaneously grows.

4. It is not known by different names in this district, since it does not grow here.

5 and 6. The wild hemp plant is not grown in this district, so the information called for regarding it is not available.

7. Yes. The cultivation of the hemp plant for production of ganja, bhang and its seeds is made at the following places in this district in my charge in the quantity given against them—

Taluka.	Village.	Quantity of Ganja.	Quantity of Bhang.
Newasa	1 Kukane, 2 Tardi, 3 Mangrul, 4 Bhenda, 5 Chendule, 6 Dewgari, 7 Hivre	About 800 maunds of ganja.	...
	8 Miri Maka	Only seed.	...
Shewgaum	1 Tisgaum, 2 Nundanga, 3 Gevrai	300 maunds of ganja.	30 maunds of bhang.

Kopergaum taluka produces 300 maunds of ganja only.

8. Since the introduction of the Abkari Act, there has been decrease in the area under cultivation, owing to the restrictions imposed on the sale of ganja and the necessity of obtaining permission to prepare ganja though not to grow it.

9. Irrigated and well-manured black soil is required for its cultivation. It is sown exactly like jowari. Hoeing and weeding are required to be done every fortnight. The season for sowing ganja is about the end of July. One month after the seed begins to germinate, a man is required to examine daily the plants and destroy the male ones, lest they should cause the neighbouring female plants to fail. The hemp plant takes three months to produce flowering tops.

10. No. They are of the same class as other agricultural cultivators.

11 and 12. No.

13. No. Its cultivation is common to all districts. It is grown in almost all the talukas of this district more or less except Jamkhed and Akola, the soil of which is not adapted to the cultivation of the hemp plant, which requires black rich soil, which is rare in these talukas owing to there being hills in them. The conditions favourable to the cultivation of this plant are hot climate, black or red soil, and the rainfall should be moderate.

14. All these products are prepared in this province. Where and to what extent these are prepared are mentioned in answer No. 7.

15. The preparation of the cultivated hemp plant is made in several particulars, such as (1) majum otherwise called yakuti, (2) gulkand, (3) boja, (4) bhang or ghota, (5) charas. The preparation of the cultivated hemp plant is made in several particulars, such as majum or yakuti, gulkand, boja, ghota, charas, bhang and ganja. The methods of the preparation are as under:—

Majum or yakuti.—First dried heads of ganja are perfectly cleaned and washed with water. Afterwards they are mixed with ghee in the proportion of four seers of ganja to one seer of ghee. Then the mixture is kept boiling continuously for two or three days, adding water to it to prevent the ghee being dried up and to extract the essence till the colour of the ghee is changed to green. Then it is filtered into another pot and allowed to remain undisturbed for some time. The green coloured ghee freezes and floats upon the surface of water. It is then gently taken out by means of blades of knives. This ghee is then mixed with melted sugar in the ratio of four seers of sugar to five tolas of the ghee, and other sweet-scented spices are added to it. The mixture is then formed into pieces called majum or yakuti.

Gulkand.—Gulkand is prepared by a mixture of sugar and rose flowers. This mixture is kept for several days in the sun in an air-tight pot. Afterwards the heads of ganja are perfectly cleaned and mixed with the so-prepared gulkand, which is chiefly used by some of the rich.

Boja.—Sixteen seers of pounded jowari is first boiled and then dried up. To this koshtkolanjan (22 tolas), bhang (two pounds), davana (five tolas), fine shoots of jowari (ten tolas), marwa (five tolas), and kachur (five tolas) are mixed. This mixture is kept in a pot for one day and is then called boja. It is mixed with water in the ratio of 15

seers of water to 30 seers of boja and filtered. The filtrate becomes useful for drinking purposes, and is used in the Sholapur district.

Ghota.—For the preparation of ghota, bhang is taken and subjected to the operation of clearing and washing several times, till it gets free from all dirt. It is then washed and filtered through cloth. The filtrate is then drunk either with or without milk and spices. This drink is termed bhang or ghota.

Charas.—Charas is not specially prepared. It is a resinous matter of the hemp plant which sticks to the hands of those who harvest ganja.

Ganja.—Ganja, which consists of flowering tops of cultivated female hemp plants is, after being dried and trodden, cleaned and washed with water five or six times, is then squeezed with the hand in order that it may be free from water and then smoked with tobacco.

16. It is not prepared in fields but in houses. I mean the drink called bhang is not prepared in fields. The bhang leaves are brought from fields and are subjected to the process described in the last preceding answer that such preparation may serve as a drink. Wild hemp plant is a rarity in this district, so no ganja or charas is known to be prepared from it.

17. Ganja and charas are prepared from the plant by cultivators. As to ganja which has to undergo some more process before it is consumed, the consumer makes it ready for use, washes it some five or six times and clearing it of its dirt and other impurities uses it. In the same manner bhang, otherwise called ghota, is made ready by the consumer himself. It is only majum which is sold ready-made by native perfumers.

18. Yes. Ganja, bhang, and charas deteriorate by keeping them more than a year. Yes; after two years it looses its intoxicating effect entirely and becomes useless. Deterioration is more due to exposure than to anything else. Should these drugs be kept in boxes, or places which are air-tight and proof against moisture, etc., they would keep longer than usual.

19. Ganja and charas are used for smoking. Ganja in this part of the country is also used by natives as tonic and to arrest the motions of bowels. It is given as medicine both to human beings and cattle.

20. None except the ganja cultivators can get charas for smoking, being produced in very small quantity. It is therefore never brought to market for sale. Ganja smoking is not restricted to any particular class of people; but it is used by a majority of fakirs, bairagis, gosavis and other mendicants. There is hardly a village in this district where it is not smoked more or less by the above-named people or cultivators and other labouring class.

21. As in this district the only ganja produced is flat, no other but the flat one is used for smoking.

22. Native charas is always used.

23. Bhang is never used for smoking.

24. Eating of majum, a kind of preparation of hemp drug, is indulged in generally by debauchees. Their proportion is one per cent. of the population of this district. The preparation of hemp drug used for drinking called ghota is used by Marwadis, bairagis and a few brahmins. The proportion of Marwaids is 20 per cent., bairagis 90 per cent., Brahmins ·04 per cent. Eating prevails in large places where native perfumes are sold. Drinking is prevalent at places where there is a Marwadi and bairagi population.

25. There is no exact data on which to base an answer to this question. Our every-day experience, however, shows that the use of these drugs amongst higher classes is considerably on the decrease; whereas the lower classes having taken more to the use of these drugs is on the increase. The cause of increase can be ascribed to the comparatively heavy rates of country and foreign liquors at which they are sold.

26. (*a*) 15 per cent.

(*b*) 10 per cent.

(*c*) 5 per cent.

(*d*) 3 per cent.

27. These people are mainly taken from the following classes—

(*a*) Labourers, (*b*) fakirs, (*c*) beggars, (*d*) sadhus (ascetics), (*e*) traders and servants.

Beggars, fakirs and sadhus (ascetics) use it to allay hunger. The others use it for pleasure's sake.

28. (*a*) One quarter of an anna's worth of ganja or bhang.

(*b*) One anna worth of ganja or bhang.

29. Tobacco is used ordinarily with ganja to make the latter burn easily, as it is used wet in smoking. Dhatura is more intoxicating. It is mixed by offenders to make their victims swoon when they want to practise fraud without being detected of the same. Bhang is mixed with almonds, sugar-candy, ginger, cardamoms and poppy seeds by the rich. The poor use bhang with coarse sugar. The object of mixing bhang with other ingredients is to make it a cold drink and give a kind of flavour to it. The above-mentioned ingredients constitute bhang massala.

30. Respectable persons use it in solitude. Their proportion is about 6 per cent. 30 per cent. use it in company. It is particularly confined to male sex. Some prostitutes do smoke, but their number is too small. Hardly any child uses it except for medicinal purposes.

31. The ease or difficulty in forming the habit of consuming these drugs, I think, depends on one's nature. It may be liked by some, while it may disagree with others. Experience, however, shows that it is difficult for those who are in the habit of using these drugs to break off the habit. Yes, there is a tendency in the case of all these drugs for the moderate habit to develop into the excessive.

32. The god Shiv is fond of the bhang drink called ghota. So the devotees of the god Shivon a particular day called Shivaratri mix ghota with the juice of sugarcane and offer it to the god and use the remainder for themselves. Except this custom, I am not aware of any other custom, either social or religious. It is not regarded very essential. It is temperate and is not likely to lead to the formation of the habit or otherwise injurious.

33. It is regarded as vice by the public. The public opinion (social) is against the practice. The disrepute attached to the use of these narcotics is attributable to their intoxicating influence under which their user remains for some time. Before harvesting hemp plants are worshipped like other agricultural produce, the object being to invoke the assistance of the agricultural deity in securing eligible purchase.

34. For some days at least the consumer foregoing the use of the drug would feel languid, dispirited, dejected and weak. But the effects of the disuse of the drug by the consumer would not be more serious than this.

35. Yes, it would in my opinion be feasible to prohibit the use of these drugs. The consumers are not materially benefited by the use of these drugs except that they feel cheerful while under its influence. Fakirs, bairagis, etc., who have no means at their command to enjoy themselves otherwise, seek enjoyment in the use of these drugs. Yes; the drug would be consumed illicitly. The prohibition can, I think, be only enforced by prohibiting absolutely the cultivation of this drug. The prohibition would at the outset engender considerable discontent among the consumers, the majority of whom are beggars. Their discontent would never amount to a political danger. The prohibition, however, is likely to increase the use of alcoholic stimulants or other drugs less expensive, such as dhatura, which is more injurious than hemp drug.

36. At present there is no reason to apprehend that alcohol is being substituted for hemp drugs. But the prohibition to use them might, it is feared, lead their consumers to the use of these drugs as labouring classes and beggars often stand in need of some intoxicating drugs to make light the effects of the fatigues of their labour.

37. Yes. The former is more intoxicating. Charas has a more intoxicating effect than ganja, it being the essence of the hemp plant. It is used in smoking, simply by adding godakho to it; while ganja is first perfectly cleaned and washed with water, and by mixing tobacco with the so-cleaned ganja it is used for smoking. Ganja is easily procurable at shops. But charas cannot be had in markets.

38. Round ganja is not prepared in this part of the country. Flat ganja has a more intoxicating effect on consumers than chur. Chur is nothing but a powder-like substance that remains at the bottom of the ganja prepared and collected. Chur is used for smoking only; while ganja is used for various preparations.

39. The smoking of any preparation of the hemp plant is more injurious than drinking or eating the same or any other preparation, because smoking is hurtful. It affects lungs and chest, produces cough and excessive heat in the system and dries up blood. While in drinking and eating it has a beneficial effect on the constitution, inasmuch as it cools the system. It is therefore consumed even by higher classes in the hot season.

40. Yes. Bhang or ganja is mixed with powders made of other ingredients and used in the treatment of cattle disease.

41. The moderate use of ganja, bhang or charas is beneficial in its effects:—

(*a*) It has a digestive power.

(*b*) It gives staying-power under severe exertion or exposure and alleviates fatigue

(*c*) It destroys the bad effects resulting from unwholesome water.

The tendency of the people in using the drug is mainly to secure the effects stated above. The reference is applicable to the moderate habitual and occasional users. To the latter the effects are prompt and quick.

42. The moderate use of these drugs is harmless as well as beneficial, because it possesses the quality of exciting appetite and power of digestion. It is also astringent, gives refreshing sleep, and enables its user to overcome the effects of fatigue.

43. Yes. They are quite inoffensive to their neighbours.

44. Habitual consumers do not get any intoxicating effect by a moderate use of any of these drugs. It is refreshing. It does not produce intoxication. It does not allay hunger; on the contrary it excites it. It creates appetite. The effect lasts for a couple of hours. As to after-effects, there are practically none. Yes; the want of subsequent gratification produces longing and uneasiness.

45. The habitual moderate use of these drugs does not produce any noxious effects—physical, mental or moral. It would impair the constitution to a certain extent should no substantial food be taken. It does not injure the digestion. It creates appetite. It arrests dysentery. Habitual ganja-smoking would alone cause bronchitis unless it is followed by substantial food. I have never heard that the use of these drugs causes asthma. It does impair the moral sense. It does not induce laziness, but it leads the consumers to habits of immorality. It does not deaden the intellect or produce insanity if used in moderation.

46. A person consuming any of these drugs excessively would, I think, be subject to all the harms referred to in the last preceding question. The excessive use of these drugs is also calculated to deaden the intellect and produce insanity. I am unable to say whether the insanity due to habitual excessive use of these drugs is temporary or permanent, as I have seen only one or two cases of this kind.

47 and 48. No.

49. The moderate use of these drugs is said to be practised in a few instances as an aphrodisiac. It is so used by a few dissolute persons who are unable to afford to indulge in alcohol, which is more expensive. It is never known to be injurious, nor is it known to produce impotence.

50. The excessive use of these drugs is never practised as an aphrodisiac. It is never practised by persons of dissolute character. It is really more injurious than its use as an ordinary narcotic. Excessive use is said to be productive of impotence.

51. Bad characters are not necessarily habitual moderate consumers of any of these drugs. The moderate use of these drugs has no connection with crime in general or with any special crime.

52. As the excessive use of these drugs by bad characters is likely to expose them through their intoxicating effects, I think there is the least chance of excessive use of these drugs being made by bad characters.

53. Excessive indulgence in any of these drugs, I believe, incites to unpremeditated violence. I know of two cases in which excessive ganja smokers became insane and were in the habit of throwing stones at passers-by.

54. These drugs are never heard of being specially used by criminals with the express object of fortifying themselves to commit any act of violence or other crime.

55. Criminals in order to further their designs are known to induce their victims to partake of majum, a preparation of ganja, and thereby stupefy the latter. To secure complete stupefaction by means of this drug admixture of dhatura is said to be necessary.

56. (*a*) The effects of hemp used in moderation when modified by the admixture of foreign substances except dhatura are harmless.

(*b*) If used in excess they are injurious to health.

I am not aware of an instance in which the admixture of dhatura for personal consumption is used. But I hear that dhatura is added sometimes by criminals to majum for administering to their victims, when its effects are very dangerous. Oftentimes the victims turn out insane.

57. Charas is never eaten or drunk as far as I know. It is either mixed with ganja or gudakho and smoked. Ganja is only smoked. Charas has a stronger effect. It stupefies one at once, that is, sooner than ganja, and the stupor lasts longer. Ganja if smoked stupefies one also at once but the stupor does not last long. When bhang is drunk as ghota or when majum is eaten it has also stupefying effects like ganja.

58. I consider the present system of excise administration in this province in respect of hemp drugs as working well.

59. I do not think it is capable of any improvement.

60. I think the process of its preparation is sufficiently controlled. As to its cultivation there is little need of control on it.

61. Charas, as stated above, is produced in too small a quantity to find market for it. What little is produced is consumed in fields. So there is hardly any necessity for special measures to control the process of its preparation.

62. The cultivation of the hemp plant for the production of bhang is, I think, sufficiently controlled at present.

63. I think the present system of (*a*) wholesale (*b*) retail vend of (1) ganja, (2) bhang, or their preparations is free from any objection.

64. I have no objections to the existing regulations governing the export and import of these drugs and their preparations.

65. I think the taxation referred to in this question is quite reasonable.

66 and 67. No.

68. As to such houses or shops there are none in this province.

69. The wishes of the people are consulted before a shop is opened in any locality. For this purpose application bearing the signatures of the residents in a locality is submitted to the Collector, who sends it to the mamlatdar of the place for enquiry and report. Permission to open a shop is granted should the mamlatdar report that there is necessity for it.

70. The production of hemp plants being abundant in this district, there is no importation or smuggling of hemp drugs from Native States.

---

26. *Evidence of* KHAN BAHADUR DADABHAI DEENSHAH, *Parsi, Huzur Deputy Collector and Magistrate, 1st Class, Kaira.*

1. I had had opportunities for several years before 1880 of coming into daily contact with a few persons, some of them in well-to-do circumstances, and others of the class of peons in Government offices, and foot and mounted constables, who were habitual as well as occasional consumers of ganja. Some of them consumed it in excessive and some in moderate quantities; some had, after indulgence in it in excessive quantities, reverted to moderation or ceased altogether to smoke ganja. Now and then I had had occasion to notice gangs of bairagis, fakirs, and such like wandering tribes, who resort to ganja-smoking as a rule, and with whom some of the persons referred to above by me used sometimes to associate. Since 1882 I have been living at a short distance from people of the labouring classes, a very large portion of whom are addicted to ganja smoking. After the receipt of Government orders, I endeavoured to seek information from every direction where I thought there was a possibility of my getting reliable particulars. I have consulted police officers, abkari inspectors, licensed vendors of ganja and bhang, ganja and bhang consumers, including those who have given up the use of ganja after indulgence in it for some time, and friends in all the districts of Gujarat, who are more or less conversant with the subject.

2. Charas and chur are not imported into and sold in this district. Flat ganja only is imported and sold in this district, and it is known as ganja. Bhang goes under that name only almost as a rule. Sometimes it is called subji.

3. I am not aware of any.

4. *Vide* answer to No. 3.

5 and 6. I do not know.

7. For its fibre the hemp plant is cultivated in several talukas of the Kaira district. The following are the particulars concerning it :—

Taluka.	In the revenue year 1891-92.		In the revenue year 1892-93.	
	Area under cultivation.		Area under cultivation.	
	A.	G.	A.	G.
Matar . . .	...	24	2	19
Kapadwanj . .	38	29	64	6
Nariad . . .	11	8	1	...
Borsad . . .	1	25	2	21
Anand . . .	...	...	9	25
Total . .	52*	6	79	31

8. Before the introduction of the Bombay Abkari Act (Act V of 1878) hemp plant was cultivated in a small area in two of the villages of the Kapadwanj taluka of this district for the production of ganja and bhang. The seed required to be sown in one bigha for bhang was about 10 pounds. The largest yield of bhang per bigha in good soil was about 25 local maunds, and the average yield in middle-class soil was from 5 to 10 local maunds. In about 3½ acres of land hemp plant for the production of bhang was cultivated in the village of Antroli. In about 26 guntas of land hemp plant for the production of ganja was cultivated in the village of Badarpur. In consequence of the restrictions imposed by the Abkari Act for the transport and export of ganja and bhang and for their sale and possession, the cultivation was given up as troublesome and unremunerative. From a very reliable source I have been informed that hemp plant for the production of bhang was cultivated in a small area in the Paldi village of the Daskrohi taluka of the

Ahmedabad Collectorate; but the mamlatdar of Daskrohi, to whom a reference was made by me, has not been able to confirm my information. My informant, however, most emphatically assures me that it was cultivated. Its cultivation there was given up also since the introduction of the Bombay Abkari Act.

9. The methods of cultivation of hemp plant for bhang and ganja were almost similar to those described in letter No. 562, dated 30th August 1893, from the District Deputy Collector of Bijapur, attached to letter No. 4752, dated 11th September 1893, from the Commissioner of Customs, Salt, Opium and Abkari, to the Chief Secretary to Government, Revenue Department.

10. They were of the same classes as other agricultural cultivators.

14. No.

18. Bhang deteriorates in quality after one year, and ganja begins gradually to lose its intoxicating qualities generally after a year, and becomes unfit for smoking after two years. The above are the periods for which bhang and ganja remain good with ordinary care. Damp weather affects them, from which they ought to be protected as much as possible. Want of such precautions leads to their early deterioration. No special remedies are known which can preserve their quality from the effects of time.

19. Charas is not at all imported for sale into Gujarat. Sometimes bairagis and fakirs bring it with them in small quantities, and people who habitually associate with them are offered to smoke it. Ganja is almost exclusively used for smoking. To a very limited extent it is used in the preparation of majum or pak, or yakuti. The majum prepared with the admixture of ghi obtained by boiling small leaves with water and ghi does not deteriorate in as short a time as majum prepared with bhang ghi. Ganja majum, if prepared with care and skill, keeps good for about six months, while bhang majum becomes rancid in half that period.

20. In all localities, and generally all classes of people smoke ganja. Those belonging to the higher classes of Hindus as well as Musalmans do not smoke openly, and do not admit that they are addicted to it. In the districts of Gujarat from four to five per cent. of the population are habitual ganja smokers; but as they almost, as a rule, belong to the class of male adults, the percentage of ganja smokers to the male adult population may be said to amount to something like 14 per cent. The population of the town of Kaira, according to the last census, is 10,101, and of males of the age of 20 years and upwards, 2,881. The total number of persons who indulge in ganja smoking are roughly estimated at 400.

21. Flat ganja only is imported into the district of Gujarat for sale.

22. Charas is not at all imported and sold.

23. Bhang is not used for smoking.

24. All classes of people more or less drink bhang during the hot season as a cool beverage; but in the districts of Ahmedabad and Kaira its use is not so general as in the districts of Broach and Surat. Well-to-do people use it in larger numbers than the poorer classes, because bhang drink is a little expensive when compared with ganja smoking.

25. Charas is not at all used. Bhang is used to a very limited extent only for drinking during the hot season. As to the extent of the use of ganja for smoking, please see answer to question No. 20. The use of ganja does not appear to have either increased or decreased to such an extent as to draw attention. The chief consumers of the drug are bairagis, fakirs, and mendicants, and people of the lower classes. Bairagis and fakirs live on alms, and are not able to spend much on intoxicants, which naturally confine them to ganja. The income of the lower classes is also very limited, and they, therefore, prefer ganja to other drinks or drugs as less costly. Ganja and bhang for the preparation of majum or yakuti, are not used to the same extent now as in former years. Before the introduction of the Bombay Abkari Act several persons in large towns used to make majum or yakuti of various qualities for sale. Their trade in it has been put a stop to by the restrictions of the law. Persons of respectable classes in good pecuniary circumstances used to make majum or yakuti at their houses, and in some cases very costly, by the admixture of various ingredients and minerals. Members of the rising generation do not feel inclined to put themselves to all the trouble and expense required for yakutis of superior kinds in consequence of the facilities which have during the last few years increased for obtaining country confectioned liquor and foreign wines and spirits. Ganja, however, was to such a very limited extent required for majums and yakutis that the discontinuance of its use largely in that direction cannot be said to in any way have affected the quantity needed for general consumption.

26. Out of 100 ganja smokers—

Four to six persons may be said to be excessive smokers, *i.e.*, those who generally spend two or three pice a day on ganja. They, however, do not consume the whole quantity themselves; but each of such consumers has one or two companions either wholly smoking his (excessive consumer's) ganja, or contributing a little quantity out of his own (companion's) stock.

80 to 85 persons may be said to be moderate consumers, *i.e.*, those who spend from one pie to three pies on ganja daily. They also smoke it in company, as mentioned above.

About 10 per cent. may be said to be occasional moderate smokers, *i.e.*, those who do not themselves spend money on ganja, but avail themselves of the offers made by friends, and who, consequently, do not get ganja to smoke every day.

These particulars must be taken as confined to the town of Kaira only, for which I have endeavoured to obtain particulars from several ganja smokers. It must also at the same time be remembered that it is, after all, the guess work of a few smokers.

27. It is estimated that in the town of Kaira there are about 400 ganja smokers, of whom—

about 200 are Brahmins, Banias, Shrawaks, Bhawsars, Sonis, Kunbis, etc.;

about 70 Musalmans;

about 70 Dharalas;

about 60 Rajputs and travelling bairagis and mendicants.

The same remark applies to this answer as to answer No. 26.

28. Please see answer to question No. 26.

29. (*a*) Tobacco is always mixed with ganja used for smoking, according to the taste and habits of the consumer generally, and an equal quantity of ganja and tobacco is mixed together.

Some persons take one part of tobacco and two parts of ganja.

Tobacco is mixed, it is said, for two reasons, *viz.*:—

(*i*) to suppress the bad smell of ganja, and

(*ii*) to moderate its effects on the throat.

I have heard of two bairagis in Kaira who mixed some dhatura with ganja to smoke. One left Kaira several years ago, and the other, who had shifted to Khumarevad, a village about 3 miles from Kaira, has left that place lately.

Bhang beverage by the well-to-do classes is prepared in the manner described in the Bijapur District Deputy Collector's letter attached to the Customs Commissioner's letter No. 4752, dated 11th September 1893, to the Chief Secretary to Government. Poor people mix black pepper and sometimes poppy seeds. Bhang massala is not kept here ready for sale; but consumers of bhang buy as many ingredients as they like, according to their taste and means.

30. Consumers of bhang and ganja generally prefer to be in company of at least one or two persons, except those who indulge in ganja smoking secretly. Generally speaking, ganja smoking is confined to the male sex, and adult persons of all ages smoke it. After very minute enquiries I was able to ascertain that three females smoke ganja in the town of Kaira. One acknowledged to me that she smoked before, but gave it up about four or five years ago. The other two denied that they are ganja smokers. Bhang beverage is partaken by females and children sometimes; but ganja, almost as a rule, is not given to children to smoke.

31. The habit of smoking is acquired if it is smoked on being offered ten or fifteen times. It is not difficult to break off the habit if the man is able to practise great self-denial for a few days, as far as moderate consumers are concerned. Excessive smokers, *i.e.*, those who spend two or three pice a day on ganja, find much difficulty in leaving off the habit, and for some days suffer from want of appetite, indigestion, heavy stomach, ennui, and do not feel inclined to work. Moderate smokers suffer also in similar ways, but to a slight extent, and for about a week only. In some few cases the moderate habit develops into the excessive, but not to the same extent as is the case with regard to opium and liquor.

33. Bhang drinking is not in any way looked upon as disgraceful or degrading, and so is the case with regard to the use of majum and yakuti. Of course, when proper limits are exceeded, and the consumer by excessive use acquires the habit of losing self-control and becomes an annoyance to others, he is kept at a distance and called a "bhangari" or "nishakhor." But the same is the case with regard to the use of intoxicating drinks or drugs of every description. With regard to ganja smoking the case is altogether different, as far as the higher classes are concerned. Among them the habit is certainly looked upon as unbecoming and disgraceful. Ganja is considered to be intended for mendicants, bairagis, and fakirs, and people of the lower classes whose means are so slender as to put it beyond their means to indulge in any other intoxicating drink or drug.

It is not the custom here to worship the hemp plant on any occasion.

34. As far as bairagis, fakirs and mendicants are concerned, it would be a serious privation to them to be deprived of ganja smoking. Bairagis belong to the Hindu and fakirs to the Muhammadan religion. They live on alms from their co-religionists, among whom liquor drinking is treated as a sin. Intoxication from liquor cannot be concealed, and bairagis and fakirs consuming it cannot hope, therefore, to receive sympathy and alms from the members of their communities. Liquor is at the same time too dear in comparison with the cost of ganja. Where a pice worth of ganja is sufficient to keep a man in a state of pleasant intoxication, a pint of liquor worth five annas would be required. In the case of opium, there are no religious obstacles; but as regards the cost it cannot take the place of ganja.

Bairagis, fakirs and mendicants, in order to doze away their time and to remain free from the effects of ennui, require some intoxicant, and they as well as their co-religionists have for ages been accustomed to look upon ganja as the only drug suitable for their purpose. As long as there is nothing else equally cheap and effective to take the place of ganja, the consumers as well as the ignorant public would view any restrictions in the way of ganja as a design to force people to have recourse to alcohol and a danger to their religion.

As regards numbers, please see answer to question No. 20.

35. Please ses answer to question No. 34. The prohibition may not perhaps immediately amount to anything like a political danger; but the discontent among the lower and ignorant classes would be so great as may lead to serious embarrassments on some critical occasion. Entire prohibition is, therefore, not advisable. As regards recourse to alcohol or any other drug, please see answer to question No. 34.

36. Please see answer to question No. 25. As far as the use of bhang and ganja for the preparation of majum and yakuti is concerned, alcohol is to a very great extent substituted for those drugs. Those who are able to mix freely with Hindus and Muhammadans of higher classes need no proof in satisfaction of the above facts. It is an admitted fact and open secret that Hindu youths and middle-aged men have of late years greatly addicted themselves to the use of confectioned country liquor and foreign wines and spirits. The vice has also to some extent spread among the Muhammadans in the Ahmedabad and Kaira districts. Formerly, in Ahmedabad, at two or three shops, confectioned country liquor was sold to a limited extent. Now-a-days it is sold at a good many shops in the city and talukas, and the same is the case regarding the Kaira district. Those who, under the old state of things, would have remained consumers of majums and yakutis have become liquor drinkers.

37. It has already been stated above that charas is not imported into and sold in the districts of Gujarat. Those who have on some occasions smoked charas say that its effects are much stronger than those of ganja, and that a very small quantity of it produces great intoxication. In their opinion there is no further difference.

38. As flat ganja only is sold here, consumers are not able to furnish any information on this point.

39. Bhang is used for drinking purposes only and ganja for smoking, except when used for majum and yakuti.

40. Bhang is used by native doctors in pills given to check dysentery. In the treatment of cattle disease bhang or ganja is not used in this

part; but ganja in a small quantity mixed with jagri is given to horses sometimes to enable them to perform long journeys without much feeling, through intoxication, the effect of fatigue.

41. (*a*) Those who are habitual moderate consumers of ganja do not feel hunger till they have smoked it. It cannot be said, however, to be beneficial in the sense of increasing the appetite or strengthening digestion. For a few days—say about a week—in the commencement, the consumer finds his appetite on the increase; but thereafter he reverts to the normal quantity of his meals. In their cases ganja smoking does not assist digestion. In the case of occasional consumers it assists digestion, and is smoked with that object after heavy meals at dinner parties.

(*b*) Consumers think that ganja smoking helps them to undergo exertion and fatigue better by its aid than otherwise they would be ; but those who have smoked it for some years and given it up think that it is a mere delusion ; that simply in consequence of the effects of intoxication fatigue is for a short time not felt on some occasions.

(*c*) Ganja is never used as a febrifuge. Bhang is drunk in fever cases by some persons, though not a large number, with a view to keep down the temperature of the body.

(*d*) To ward off the effects of bad water-supply, ganja is considered by all smokers to be a sovereign remedy. Travellers in tracts where the water-supply is not good use it, according to their opinion, with beneficial results, as far as the effects of bad water are concerned.

Persons in well-to-do circumstances belonging to high castes do not, except in rare cases when travelling, smoke ganja to counteract the effects of bad water-supply, and do not also use it with a view to create appetite or strengthen digestion.

42. Except as mentioned above, the use of ganja is not in any way beneficial. As far as moderate use is concerned it is not harmful if of good quality and well washed and cleansed before brought into use, provided the consumers are in a position to get a proper quantity of food and milk or ghi in a small quantity. To debilitated constitutions it proves injurious and gives rise to bronchitis, asthma, and lung diseases. It affects the sight also. It is very hot in quality, and impairs virile powers more or less in all cases, and specially of those persons who are not able to get sufficient food. I have come to these conclusions on a consideration of the constitutions of a good many ganja smokers whom I have seen from day to day for a good length of time, as well as on a consideration of the account I have been able to collect from others.

43. Yes.

44. The habitual consumers in moderate quantity of ganja feel hunger soon after they have smoked it. It produces intoxication, and consequently the smokers feel themselves refreshed; but really speaking such is not the case in its proper sense. Habitual moderate consumers generally smoke it thrice a day, *viz.*, in the morning, at noon, and in the evening. Except in a few cases, the effects of the morning chillum lasts till noon, and of the noon chillum till the evening. In a few cases the effects do not last for more than 2 or 2½ hours. If a consumer does not get his chillum at the proper time, he feels a slight headache and uneasiness and a longing for it.

45. Please see answer to question No. 42 as regards the effects of ganja smoking.

In some cases of young persons ganja smoking for a year or two induces habits of debauchery, but not to a greater extent than is caused by other intoxicants. It does not generally induce laziness or impair the moral sense. Except when taken excessively ganja smoking does not produce insanity, or, except in a few cases, affect the intellect.

47. No.

49. Yakutis and majums made of bhang and ganja ghi are used by lustful persons, generally males, with a view to strengthen the power of duration in the act of sexual intercourse. Such use repeatedly tends to weaken the constitution and impairs, after a time, virile powers.

50. Excessive use of ganja for smoking for a length of time tends to produce impotence.

51. No instances are known to me in which ganja smoking or bhang drinking can be connected with crimes of a general or special character. Gamblers belonging to lower classes are generally ganja consumers.

52. Please see answer to question No. 51

53. No such instances have come to my knowledge.

54. No such instances are known.

55. No such instances are known. The consumers think that, without admixture of some other drug, ganja smoking does not produce such complete stupefaction as to enable criminals to succeed in their designs on their victims.

68. No.

69. Generally not. The use of bhang and ganja in these parts is so very small that it seems to be a matter of no consideration whether *local* public opinion is consulted or not.

---

27. *Evidence of* Rao Bahadur Bhaskar Rao Ramchandra Heblikar, *Brahmin, Deputy Collector, Sholapur.*

1. I had to examine in my official capacity several shops selling bhang or ganja, and used to make enquiries for the purposes of my administration reports. I have also made investigation into the facts of the case, specially now as directed by Government.

2. They may be accepted. They are locally known as (1) ganja, (2) bhang, and (3) charas.

3. In no district of which I have acquaintance does the hemp plant grow spontaneously.

4. I know of one name (ganja) by which the plant is called.

5 and 6. I have no information about wild hemp, as it does not grow in any of the districts of which I have knowledge.

7. The hemp plant is grown for production of ganja and bhang only. It is cultivated in Surdi and Manegaum in Barsi taluka, in Kowta in Sholapur taluka, and in Kasegaum in Pandharpur taluka. The cultivation extends to 45 acres and 25 gunthas in the Sholapur district, on an average struck from figures of thirteen years. The minimum extent of cultivation was 11 acres in Barsi in the year 1883, and the maximum was 100 acres and 27 gunthas in Barsi and Pandharpur in 1875-76.

8. There has been no considerable increase or decrease recently.

9. The land is first prepared and manured at the rate of about two cart-loads per acre. The seeds are cast and beds are prepared as for garden crops with a view to water the crop. The male plants are subsequently removed. For the first month the crop is watered every week and a little later afterwards.

10. They are of the same classes as other cultivators.

11 and 12. No.

13. I cannot say that the cultivation is restricted. I think it can be grown in any black soil as a garden crop in a hot climate where the rainfall is not excessive, as it is in the Concan.

14. Yes. Only ganja and bhang are prepared. The places and the extent to which they are grown have been named in the answer to question No. 7.

15. No wild hemp plant is to be found in this province.

The only products prepared are (1) bhang, (2) ganja. From bhang ghota is prepared by the drug being well rubbed and mixed with milk or juice of sugarcane with some spices, as almonds, saffron, etc. This is drunk. There is another preparation called majum which is made from bhang. Bhang is washed clean and water is squeezed off. Ghee is then applied to it, and the mixture is then boiled in water for about two days. The liquid part is then extracted and mixed with syrup of sugar and hardened. The substance is then made into square pieces and sold under the name of majum. This is eaten. The method of preparing boja is as follows:—

Jowari is coarsely ground and put in water for a few hours. It is then poured into boiling water. Bhang is well warmed in an iron pan and nicely powdered and then put into the boiling jawari. Some spices, as koshta, kolinjana and kuchla are put into the mixture and removed from the fire after the whole mixture is well boiled. Some quantity of water is then added to it, and the liquid squeezed off, which is called boja.

Ganja is used for purposes of smoking only, mixed with dried leaves of tobacco. It is never smoked singly.

16. Yes; except majum and boja, which are sold in shops. Whether it can be prepared from the hemp plant, wherever grown, or from wild plants, cannot be explained, as the plant is only cultivated here.

17. Ganja is used by weavers, fakirs and bairagis more than others. Bhang is in the same way used by Marwaris. Boja is used by Mahars and other low castes. Majum is also used by Marwaris to a greater extent than others. These drugs are also used by all other castes, except boja to a very small extent.

18. Yes, they do. Nothing is known about charas, as it is not used here. Bhang and ganja entirely lose their effects after one year. It deteriorates sooner by being kept in damp places. The only measure that can prevent deterioration is to keep the drug in a warm place unexposed.

19. Ganja is used only for smoking in the districts of which I have knowledge. Charas is not used here.

20. The people who smoke ganja generally are weavers, Pardesis, Fakirs, Gosavis, Bairagis and some Muhammadans. The smoking of charas is not prevalent. The proportion of those smoking ganja in villages is insignificant. The use is much prevalent in cities and large towns, where the above classes of people are found in large numbers. Amongst these also the proportion of ganja smokers is one per cent.

21. Flat ganja is generally used, and not round ganja or chur in these parts.

22. Charas is not used in these parts.

23. Bhang is not used for smoking in these parts.

24. Bhang is used for drinking by people in cities and large towns only. It is only the Marwaris who use it as ghota in the hot season as a cooling draught. Some of the other classes use the drink on the day of Maha Shivaratra in the night time. The number of these is insignificantly small. The proportion of habitual drinkers in cities and towns is one in a thousand of the whole population. The low classes in cities use boja for drinking. Their proportion is one per cent. of the whole population.

Bhang is eaten in the shape of a preparation called majum. Its use is not confined to any particular class, nor can the proportion be clearly ascertained.

25. The use of ganja seems to be stationary, and also of charas or bhang. The area of cultivation has not increased or decreased appreciably, as appears from the figures of 18 years. Ganja is sold dearer every year, and hence the increase in revenue due from license-holders.

26. Among four hundred consumers, the proportion may be put down as follows:—

Ganja—

(*a*) 250.

(*b*) 25.

(*c*) 100.

(*d*) 25.

The same figures may be accepted for bhang in all its preparations taken together. No figures can be supplied for chur.

27. They are taken from salis (*i. e.*), weavers, bairagis, gosavis, and fakirs, who are generally of sedentary habits. Those who work generally use the drug on account of its cheapness and as a stimulant after fatigue. They are generally poor. Gosavis, bairagis and fakirs are generally men of idle habits, and desire to while away their time in a state of intoxication.

	Cost.		Quantity.	
	Ganja.	Bhang.	Ganja.	Bhang.
28. (*a*) Habitual consumers.	1 pice.	2 pice.	½ tola.	1 tola.
(*b*) Habitual excessive consumers.	3 pice.	1 anna.	1½ tola.	2 tolas.

29. Dried tobacco is only mixed with ganja by all smokers when smoking. Nothing else is mixed with it. What is mixed with bhang is already stated in the answer to question No. 15. Dhatura is never used in any of the mixtures. The object of using tobacco is to make the preparation easy for smoking. In the different preparations of bhang, the liquid is used for making the drug drinkable or eatable. The other ingredients are mixed only to give it good taste or flavour.

30. Bhang is generally prepared and drunk privately, either singly, or in company of friends and relations. Ganja smokers form a company in several places. The use is mainly confined to the male sex and to adults. The drugs are not used by children.

31. The habit is easily formed. It is a little difficult to break off the practice of smoking ganja. The tendency for the moderate habit to develop into the excessive is to be found amongst smokers and not amongst eaters or drinkers.

32. There is no such custom, social or religious. It is only on the night of the Maha Shivaratra that some persons use the bhang drink; but the use is neither essential nor much prevalent.

33. The smokers of ganja are held in disrepute. This may be said to be social public opinion. Those who use bhang are not so regarded. Ganja smokers are held in disrepute on account of their mental derangement, which results from the use of the drug. Hemp plant is not worshipped by any sects of the people.

34. I do not think it would, except in a few cases of ganja smokers. If any would be made to forego, he would gratify his craving by means of tobacco. There would be hardly any privation in the case of other preparations.

35. I do not think the entire prohibition of the drug in places adjacent to foreign territory is feasible. The drug will be easily consumed illicitly. The prohibition can be enforced by prohibiting the cultivation of the drug. I think that the prohibition would cause serious discontent amongst excessive consumers only of ganja. There will be no political danger. I do not think that the prohibition will be followed by recourse to alcoholic stimulants or other drugs to any appreciable extent.

36. There is no reason to think so.

37. Charas is not used in these parts, and so the difference in effect cannot be explained.

38. Flat ganja is generally used, and not round ganja or chur in these parts. I think flat ganja is more appreciated than round ganja, the effect of intoxication being greater in the former than in the latter.

39. Smoking seems to be more injurious than drinking or eating. Smokers generally appear to be pale and weakened in constitution. The mental derangement amongst smokers appears to be appreciable. These effects do not appear to have been caused by drinking or eating the drug in any form.

40. No. Bhang is sometimes used in the case of some cattle diseases as a tonic or cooling draught.

41. Bhang may be to a certain extent as a cooling draught, as the general impression is.

(*a*) Not as a food accessory but digestive.

(*b*) Bhang may alleviate fatigue without producing bad effects.

(*c*) No, so far as I know.

Marwaris use bhang as a cooling draught after exhaustion in the hot season. Seventy-five per cent. of them use the drug. Among consumers of ganja, the same number may be said to use it for one purpose or other mentioned in (*b*).

42. I consider that the moderate use of the drug, except smoking ganja, seems harmless. I have not come across any instances in which the use of the drug in any other form has caused any appreciable injury, bodily or mental.

43. Yes, they are.

44. He feels a craving, and consequently the gratification seems to refresh him. It produces intoxication, during which the user may not feel the keenness of hunger. Ganja does not seem to create appetite as bhang or majum seems to do. The effect of intoxication seems to last for two or three hours. There seem to be no after-effects, except those produced by gradual use. The want of subsequent gratification produces longing and consequent uneasiness.

45. Even moderate use of ganja for smoking produces noxious effects, both physical and mental. It does impair the constitution. It seems to injure the digestion and cause asthma. It induces laziness; but does not seem to lead to habits of immorality or debauchery. It seems to deaden the intellect. I have not seen instances in which the moderate use of the drug has produced insanity. Long use produces mental derangement, making the user unfit for any work requiring proper exercise of the intellect.

46. The effects are in the same way more noxious in proportion. The excessive use of ganja by men of weak brains may produce insanity. I know of only one instance of the kind.

47. No.

48. No. In the case I have quoted in my answer to question No. 46, I have seen that the children of the consumer have not been affected in any way.

49. It is learnt that the moderate use of these drugs is practised as an aphrodisiac by prostitutes, and it is thus more injurious than its use as an ordinary narcotic. The use of the hemp does not seem to produce impotence as a direct effect.

50. There seems to be no difference, except in the degree of its effects.

51 and 52. I have not learnt that there are. I do not think that any such direct connection can be traced.

53. No, neither.

54. I know of no instances.

55. Yes, there have been a few instances in which bhang was mixed with food in some shape. I do not think complete stupefaction can be thus induced.

56. The admixture of ganja with tobacco makes smoking easier, and that of milk or juice of sugarcane makes bhang agreeable as a drink, and the effect is sooner produced. Bhang is sometimes mixed with fried substances, in which form also it acts sooner.

57. I have never seen it eaten or drunk, nor have I heard in my enquiries that they are.

58. I think it is working well, but seems to require improvement in two respects.

59 and 60. The cultivation and harvesting of ganja or bhang are not properly controlled. No special inspection is made of its cultivation, nor is the crop kept under proper supervision, so as to prevent illicit export or sale. There is nothing to

prevent illicit sale to anyone having no permit or license to sell the drug.

61. No; and so I cannot answer the question.

62. I think it should be, and it would be feasible. The Abkari Inspector may go to the place where the crop is grown at the time of the harvest, have it reaped in his presence, kept in a room under his seal, and sold to retail vendors in his presence. The cultivator of the drug should be required to give notice of the date of reaping the crop, and the time when the retail dealers may require the drug for sale.

63. The objection to the system of wholesale sale of bhang and ganja is stated above. The system of retail sale is open to one objection, which is that the rates are not fixed by Government. This leaves the retail seller at liberty to unduly profit himself at the expense of the consumer. I should say that the rates should be fixed as in the case of opium and other like things.

64 None.

65. I think it is, so far as the present system is concerned. Some change will have to be made if the rates of retail sale will be fixed.

66. No.

67. No, except as stated in my answer to question No. 63.

68. None.

69. Representations from the people are considered; but there is nothing which can be called local option. The number of shops is practically the same as it was before. If the general public opinion be in favour of the removal of the shop, it should, I think, be considered.

70 I know not of any. I think the imposition of duty on drugs used in British territory is evaded in very rare instances.

---

28. *Evidence of* Rao Bahadur Sitaram Damodar, *Huzur Deputy Collector, Khandesh.*

1. As Daftardar (Personal Assistant) to the Collector of Khandesh, I have seen the whole of the Khandesh district during the years 1890-91, 1891-92 and 1892-93 and have come across men smoking ganja and drinking preparation made from bhang, have made enquiries with them as to the effect of the drug, and have seen hemp plant fields.

2. These definitions might be accepted for this district. It would, however, be well to note that in Sanskrit the plant is known as "vijaya" (promoter of success), and the Hindu mythology gives the history of it, that the plant was produced when the gods were churning the ocean with Mount Mandara. The preparation from it is held as a favourite drink of Indra, the Hindu deity.

In this district the distinctions of ganja, such as flat, round or chur, are not taken into consideration. Ganja of all the three descriptions is taken under one general head "Ganja," and no preference is given to one over the other. Bhang likewise is known under one general head, "Bhang," and the three names given are not used to draw any distinction in its kind.

3 and 4. Not to my knowledge in the Khandesh District.

5 and 6. Require no reply.

7. Hemp plant is cultivated in Khandesh to a very small extent. The object of the cultivation is to produce ganja, and with it the bhang, and for neither the fibre seed nor for to produce charas. The cultivation of this plant is confined to the Jalgaon taluka, in which an area of about 30 acres was cultivated last year.

8. There has been a decrease in the area cultivated with these plants. The reason for the decrease, as given by the cultivators and owners of fields, is that the profit from the cultivation is uncertain and less remunerative than other crops. Also it is found that the cultivation of this plant in Khandesh requires great trouble and more expense than in Nimar and the Central Provinces, the climate of which agrees more favourably for the production of these drugs than the climate of this district.

9. The land selected for the cultivation of this plant is generally black or dusky white. This is richly manured every year and the cost of the manure is roughly estimated at Rs. 15 per acre. In the month of May or earlier, the ground is well ploughed, and at the commencement of the season, which period the cultivators call "mrigá nakshatra" (commencement of June), the seed is sown in harrows. The estimated quantity of seed required per acre is 2½lb. From the date the seed is put in the ground the shoots germinate after eight days, and in about a month the plant reaches the height of about one foot. When this height is arrived at the side leaves or shoots are all removed so as to give the fullest strength to the stem to thrive in height, which is not the case if side shoots or branches are not removed. The removing of side shoots is continued till the plant comes to the height of three or four feet. The cultivation of seed is generally two inches apart. After the plant is a month old, an experienced man, who is able to distinguish male from female plants, goes to the field and roots out all the male plants. This pahani or inspection work is done every week, and at each time the male plant and "ardh-nari" (half male and half female) plants are extirpated. Removal of such plants makes the cultivation scattered. The plant stands for about fifteen days without rain; but after that time, if there is no rainfall, the field is watered every ten or fifteen days, and to allow this being done, bagait land, with means of irrigation either by a well or pat, is selected for cultivation of this plant. The plant generally flowers in November; and in December the flowering tops are cut and collected. (A photograph of ganja field is appended.)

10. The ordinary cultivators cultivate this plant in addition to other crops. There is not a special class of cultivators for this cultivation in Khandesh.

11. No.

12. Not in Khandesh.

13. No restriction is placed on the cultivation of this plant; but it being less remunerative, as

explained in paragraph 8, cultivators in other parts do not care to take to this cultivation. It could be cultivated in any part of Khandesh in ordinary good soil, and the elevation of land from sea-level, climate, etc., are not against the cultivation.

14. Ganja and bhang are manufactured in Khandesh in Jalgaon taluka to a small extent, and the quantity manufactured is estimated at 700 Indian maunds (a maund equal to 40 seers) of ganja and of about 30 maunds of bhang.

15. The flowering tops are cut with a bill-hook in December, as mentioned in paragraph 9, and arranged in a layer of about a foot high on a ground well-beaten and the floor cow-dung. The side flowering tops are then cut and placed in the hollow places of the bed so made. This being done, men (generally) commence squeezing the layer with the sole of their feet. This is done in the early morning, and after it, the layer is turned up and exposed to the heat of the sun, and allowed to remain so till the morning of the next day, when the same operation of squeezing commences. The process is carried for three days, and the ganja is then fit to be stored up. The tender leaves which fall from the tops are collected and stored as bhang. This is all the process employed in Khandesh for manufacturing ganja and bhang. As regards preparation for smoking, the ganja is first well soaked in water, and, removing the seed and stems therefrom, the leaves are washed in several changes of water. It is then squeezed between the two palms to extract water, and then it is considered fit to go to the pipe. In using it, one part of ganja to three parts of the tobacco are generally taken, and the two well mixed up. This being done, good charcoal or coir yarn fire is placed on it and smoked. The process will be better known from the photograph (No. 4) appended. In the case of bhang, the leaves only are taken and ground on a currystone, admixing therein pepper and other ingredients. When all is ground very fine, it is strained through cloth and the excretal is thrown away. The extract so taken is generally mixed with milk in the proportion of one to three parts of milk, and then it is poured up and down, which is considered necessary for thorough mixture. This being done, the bhang preparation is fit for being drunk. The process would be better understood from the photograph (No. 5) appended. For eating the decoction of bhang, it is mixed with sweet things richly spiced, sometimes with almonds, saffron or musk, and kept ready for consumers. This, however, is very little consumed in Khandesh.

16. It is prepared in their houses. The other portion of the question requires no reply.

17. It is general with all Hindus and Muhammadans, specially mendicants, such as gosavis, bairagis and fakirs; with others sparingly. It is therefore difficult to say which particular class use it and which not.

18. It does deteriorate in keeping, and, if kept for more than a year, it is fit to be thrown away as manure. With ordinary care it keeps good for 12 months. The causes of deterioration are that the resinous substance with which it is pressed is entirely dried up and evaporates from the leaves, and thereby the intoxicating qualities are lost. By keeping this article air-tight it might help to prevent its being deteriorated soon. But, since this has not been tried, nothing definitely could be said in that direction.

19. Charas is not known in Khandesh. Ganja is known and is used for smoking only and for no other purpose, to my knowledge, in this district.

20. I would refer to my answer to question 17, and add that, amongst gosavis 90, bairagis and fakirs 70, pardeshis 50, and from other classes 5 per cent. of the Hindu and Muhammadan population smoke ganja. It is common throughout the district, and not confined to a particular portion or locality.

21. I would refer to my answer to question 2. No distinction is observed in Khandesh as regards its kind.

22. Requires no reply, since charas is not used in Khandesh.

23. No.

24. The same proportion as in question 20. Those who are for the drug use it in either way. No special class can be shown.

25. Not on an increase, but might be said to be on the decrease. The reason for the decrease appears to be (1) that there is now less tendency towards encouraging the sect of gosavis, bairagis, and fakirs, and consequently their number is fast diminishing; (2) that the old religious scruples against using alcoholic drinks are dying away and therefore those whose inclination is excited to indulge in intoxication go to the latter, leaving the former, and this is what appears to be the cause of decrease.

26. Ganja and bhang collectively

(*a*)	50
(*b*)	85
(*c*)	25
(*d*)	10

27. For (*a*) from pardeshis, (*b*) gosavis and fakirs, (*c*) and (*d*) pardeshis and others collectively. Under (*a*) and (*b*) the men who have resigned all worldly care and are scantily clad and fed and sheltered have, in order to forget their sufferings, contracted the practice. In the case of others, it is regarded as a stimulant. The practice of drinking bhang amongst the pardeshis is chiefly due to the fact that they are originally the natives of Northern India, and as ganja or bhang is the ordinary staple narcotic plant in that province, they get into the habit of using this drug as a drink. The preparation made for drinking is termed thandai (cooling draught), and the general belief is that it keeps them cool from the excessive heat of the country, because the effect of this drink is cooling.

28. (*a*) Half or one tola of the drug, and in price ½ or 1 anna.

(*b*) Three to five tolas, and in price 3 or 5 annas the value of the drug.

29. Ordinarily, the bhang is ground and drunk with sugar, pepper, and a little milk, and the following ingredients are used for an exceptional or luxurious drink:—

English name.	Proportion.
	Tolas.
Bhang	2
Poppy seed	4
Aniseed	3
Black pepper	1
Kachani	½
Seeds of musk melon, water melon or cucumber	1
Rose flowers	1
Almond seed	4
Sugarcandy	10
Milk	half a seer
Water	one and-a-half seer

Dhatura is not used as an ingredient, but is sometimes admixed in common joke to befool any of their companions.

30. Bhang and ganja is consumed chiefly by gosavis, bairagis, fakirs, and other religious mendicant classes. It is consumed to a considerable extent by banias, Marwaris, and pardeshis. Now and then a Kunbi or Brahmin may be seen smoking ganja or drinking bhang; but the practice is not common.

Among the Brahmins and the higher classes it is carried on in solitude, as it is considered a vice. Both these drugs are taken in solitude and in company. Its consumption is confined chiefly to the male sex. It is very seldom that a man below the age of 25 takes to these habits; but when once the habit is formed, it generally does not leave them till death. I have not heard of children consuming any of these drugs.

Charas in unknown in these parts; so that there is nothing to say about its consumption.

31. The habit of taking either ganja or bhang is not easily formed. Occasional smokers of ganja and drinkers of bhang are seen hundreds of times using it; but they have no craving for it. Bairagis, fakirs and other mendicant classes who pretend to a celibate life, form the habit on purpose, as they believe that the smoking of ganja keeps them from sexual and other desires; but when once it is formed, the habit is difficult to break off. I have never yet seen a moderate smoker of ganja or drinker of bhang having a craving for more. It does not appear that the habit has a tendency to develop into excess.

32. There are no social or religious customs that I can point out with regard to the consumption of ganja, unless the custom of bairagis and others of smoking ganja in company be called a social custom. Bhang, on the other hand, is consumed on both social or religious occasions. On fast days it is generally taken, because it is believed to be a sort of a cooling draught. Among the Hindus generally on Maha Shivratra holiday, these drinkers of bhang join together in a temple of the god Shiva and drink bhang or ghota as it is technically called, in company in honour of the god, as that plant is supposed to be the favourite one of the deity in the Hindu mythology. At the time of the holidays bhang is consumed by most people, because it is considered as a sort of a stimulant to help them to enjoy. It is at the same time not essential that bhang or ganja should be offered on social or religious occasions. It is left to the choice of the people. It is more optional than essential. The use of these drugs on social and festive occasions is temperate, and never, to my knowledge, led to the formation of a habit, nor had it any injurious effect.

33. Occasional smoking of ganja or drinking of bhang is not generally regarded as much worse than the smoking of tobacco. But when a man has contracted the habit of being intoxicated with the narcotic drug, it is generally considered as disreputable in a social point of view. From a religious point of view, he is not condemned, nor his conduct disapproved. The reason why the use of the narcotic is in disrepute is that it is supposed to unnerve a man and make him generally unfit for the ordinary duties of life. It is supposed also to unhinge the intellect to a certain extent. I do not know of any custom of worshipping the hemp plant practised on any occasion by any sect of people—at least not in this district.

34. It would certainly be a serious inconvenience, specially to gosavis, bairagis, and other religious mendicant classes who have been addicted to the habit to forego the consumption of ganja. The preparation of ganja so as to make it fit for being smoked, and the preparation of other accessories to smoking ganja, usually keeps these members of society devoted in their prayers to God and keeps them off from committing crime; but if they were deprived of the use of ganja, they would not know what to do with themselves the greater part of the day. It would be a serious problem with them how to get through the twenty-four hours. With regard to the probable number of each class, I have to refer to my answer to questions Nos. 20 and 26.

35. It will be difficult to prohibit the use of these drugs; but at the same time it will produce discontent in the minds of the consumers of it, and the fact that religion does not come in the way of using it would stand forcibly against prohibition. Where it is grown spontaneously it will be consumed illicitly. I am not in favour of the prohibition of this drug. If prohibited, there will be discontent, as said above, amongst consumers, but there is no fear of political danger. If prohibited, those who need some sort of stimulant would take to alcoholic drinks or any other stimulant that would be found fit to be substituted.

36. As an exhilarant, this drug was only considered as stimulant; but since Western ideas have got root into the minds of educated people, the religious scruples which existed against alcoholic drinks have been dying away, and alcoholic drinks are substituted in place of these drugs; and this can be proved by the fact that the consumption of this drug is on the decrease, while that of alcoholic drinks is on the increase.

37. Charas is not sold or used in this district.

38. Only one kind of ganja (flat) is known in this district.

39. The smoking of ganja is less injurious for the reason that the resinous substance is removed by washing, and therefore its intoxication does not last long. Such, however, is not the case with the preparation made for drinking or eating. For in the case of eating or drinking, the leaves with its resinous substance are finely ground and drunk or eaten, and therefore the effects of intoxication are more severe in the latter case and last longer.

40. By native doctors it is used as specific for dysentery. It is also used for some chronic diseases, such as rheumatism. It is also used in cholera cases. It is not within my knowledge that in Khandesh it is used for cattle disease.

41. (*a*) To a certain extent, when used moderately.

(*b*) Yes, when used moderately.

(*c*) Not to my knowledge.

(*d*) (1) Well-to-do men; (2) those who have resigned all worldly care; and (3) such other men as require stimulants but cannot take alcoholic drinks on a religious point of view, use it.

In case (1) it is occasional moderate; in case (2) excessive and habitual; and in case (3), habitual moderate.

42. The moderate use of the drug is harmless for it is less injurious than opium, and less incitive towards the commission of crime than alcoholic drinks.

43. Yes, they are.

44. Benumbing them from all anxieties of life; stimulates them to take to work; produces little intoxication and creates hunger. The effects of smoking last for a few minutes, but that of eating or drinking last for several hours. It cannot be said that it allays hunger. In moderate use there are no perceptible after-effects.

45 and 46. Information on these points is not within my knowledge.

47 and 48. This does not become a hereditary habit, except in the case of gosavis and bairagis, and in no way affect the children.

49 to 54. Not to my knowledge.

55. There are no such examples of its kind in Khandesh.

56. When hemp is used in moderation by the admixture of other medicinal substances, it serves as a tonic; but when it is taken in excess, it has its bad qualities like other narcotic drugs, and proves injurious to the health of consumers, though admixture might soften a little. Dhatura is not used as an ingredient.

57. There are no instances of eating ganja to my knowledge in Khandesh.

58. The excise administration in respect of hemp drugs is working well in this district. The Collector, under the control and direction of the Commissioner of Customs, Salt, Opium and Abkari, is charged with the carrying out of the provisions of the Akbari Act. In this he is aided by his assistants and other subordinate officers, also establishment designated as district inspectors and sub-inspectors specially employed for duties under the Act.

The import, export and transport of these drugs are controlled by passes issued by responsible officers.

The sale of the drugs is permitted under certain conditions of the license. The sale of drugs to one man in one day is limited to a certain weight, and the possession of the drugs over the given limit is watched as an offence. Thus the burning desire of the consumers is tempered down to moderation and the spread of the vice is checked. Since the above good objects are gained by the present administration, no improvement in it appears necessary.

59. The present administration is not suggestive of any improvement.

60. The Abkari Act, as it now stands, does not lay any control on cultivation of the ganja-bearing plant and the process of its preparation, and so any modification in the present system is not practicable. If, however, it is provided in the Act—(*a*) that the cultivators of the ganja-bearing plant shall obtain a pass for cultivation, (*b*) warehouse the ganja and bhang in the manner required of him, this will afford opportunity to the officers to supervise the produce and consumption of the drug efficiently. There being no provision to this effect in the Act, the cultivator might, if he chose, distribute the produce amongst his friends and others, and, when it is not proved that he sold it at a price, his action will go unpunished.

61. Charas is not produced in this district.

62. Ganja-bearing plant is only cultivated in this district, and bhang is the tender leaves picked of the same plant.

63. The present system of wholesale and retail vend is unobjectionable, and no improvement in it appears necessary.

64. The existing regulations satisfy the condition in all respects, and there are no apparent objections to it.

65. Ganja and bhang are not differently treated in this district. A form of both articles is given in one lump sum, and so a comparison between the two is not possible. Charas is not used in this district. There is no direct tax on bhang and ganja; but a sum is paid by a license-holder—(1) for a permissive right granted to him to sell these articles, for which tenders are invited; (2) the fee is levied for passes granted for importing ganja from other districts; and if the amount so taken is to be construed as a tax, the realizations on this account, when compared with the revenue from alcoholic or other intoxicants, is reasonable.

66. In this district flat ganja is only known, and so one rate is preferable.

67. The incidence of the tax on the consumer is so considerate that there are no objections to the present method of taxing being continued.

68. There are no such shops in this district.

69. On the farmer applying to the Collector for permission to open a new shop in any locality the respectable people of the place are consulted. In case they make a statement that a shop there is likely to spread vice, permission is not granted; but, if found that a shop in that locality is a necessity and would remove inconvenience felt by the consumers, permission is granted, with the sanction of the Commissioner of Customs, Salt, Opium and Abkari.

70. There have been no instances of the importation or smuggling of such drugs from Native States. The users of the drug have to pay its price to the licensee, to whom the right of selling ganja is farmed out for a fixed sum, and in this light it might be supposed that duty is really paid in respect to ganja and bhang used. It is not obtained without payment.

---

29. *Evidence of* Khan Bhadur Ratanji Erdalji Kanga, *Parsi, Deputy Collector and Magistrate, Dharwar.*

1. I have obtained the information supplied here from an experienced man who comes a good deal in contact with ganja smokers, and from vendors of ganja in the Dharwar district.

2. Ganja is not grown in the Dharwar district; but the definitions given here may be accepted for my district. Each of these products is locally known by the names of ganji, charas, and bhangi. Charas and bhangi or bhang are not made or sold in the district of Dharwar.

3. In none of the districts of which I have knowledge the hemp plant grows spontaneously.

4, 5 and 6. Cannot say.

7. There is no cultivation of the hemp plant in the Dharwar district.

8 and 9. Requires no answer, as there is no cultivation of the hemp plant.

10. Persons who cultivate hemp do not form a special class; but they are of the same class as other agricultural cultivators.

11 and 12. Cannot say.

13. The cultivation of the hemp plant for ganja is not restricted in my district; but it is not cultivated, as the cultivators in these parts are ignorant as to the mode of its cultivation. I am unable to furnish information about special conditions, etc.

14. *No*; but ganja is imported from Satara and Ahmednagar.

15. Preparations for ganja are made thus—

(*A*) For smoking ganja is first cleaned out of sticks and seeds and then rubbed on the palm of the hand by a finger with some water to make it glutinous. A little tobacco is mixed with it. The mixture is put into an earthen pipe and then smoked. Rich people mix cardamom, nutmeg, mace, etc., with the mixture.

(*B*) Ganja is eaten in the form of majum cake, described in No. 19.

(*C*) It is drunk mixed with the juice of poppy and sugar.

16. Bhang is not used in the Dharwar district. I am unable to answer the remaining part of the question.

17. None of the preparations are made here.

18. Bhang and charas are not sold in this district. Ganja deteriorates by keeping and loses its effect in time. With ordinary care it keeps good for six months if it is kept in a dry state; and after six months it gradually deteriorates until a year, when it becomes quite useless owing to the drying up of the oily substance of the drug. No special measures will prevent deterioration—at least no such measure is known.

19. The answers deal only with ganja. Ganja is used in this district for smoking only. The broken or chur ganja is also called bhang in this district. It is used for eating and drinking. It is mixed with milk and sugar or jaggery and then drunk. It is also eaten by a very few of the labouring classes, that is about one in a thousand, in the form of small cakes called majum, which is thus prepared: Chur is well-mixed with milk, syrup of sugar, cardamom and nutmeg and saffron. The whole is made into a thick paste and cut into pieces of cakes. A little ganja is given to cattle in order that they may be able to digest fodder.

20. Almost all classes of people, except Brahmans and Lingayets, generally smoke ganja, though it cannot be denied that some exceptional cases may be met with in the latter two communities. About one per cent. of the population smoke ganja. Ganja smoking is widely practised in hot localities.

21. Flat ganja is preferred for smoking in this district. It is considered a great luxury. When this kind of ganja is not procurable, chur ganja is smoked. But the general practice is to smoke flat ganja.

22. Charas is not used in this district. A few charas pills were imported last year for sale from the village of Lengre, taluka Khanapur, district Satara; but there has yet been no sale for them.

23. Bhang is not sold in this district. The chur ganja is here called bhang and is smoked when flat ganja is not procurable.

24. Bhang is not used in this district.

25. The use of ganja is on the increase. About twenty-five years ago its consumption was limited to a few, because the use of the drug was considered derogatory from a social point of view, whereas now consumers of ganja may be found in almost all classes of the people on whom the hold of society is not so great as before.

26. The proportion of ganja consumers will be—

(*a*) Habitual moderate consumers, 65 per cent.

(*b*) Habitual excessive consumers, 10 per cent.

(*c*) Occasional moderate consumers are 20 per cent.

(*d*) Occasional excessive consumers are 5 per cent.

27. Manual labourers make use of ganja to alleviate their fatigue, and this resort to ganja for the sake of rest grows upon them into a regular habit. The classes to which ganja consuming persons belong cannot be decidedly determined. Persons using ganja for the sake of pleasure may be found in almost all classes of the people. Bairagis and gosains consume the drug for concentrating their attention on a single object.

28. The average allowance and cost of each of these drugs per diem will be to—

(*a*) One tola, at a cost of half an anna.

(*b*) Two tolas, at a cost of one anna.

29. Dried tobacco is ordinarily mixed with ganja so as to render it less strong and most suitable to drink. And cardamom, nutmeg, mace, frankincense, and such other fragrant things are exceptionally mixed with ganja for minimising its bad smell. Seeds of dhatura are sometimes mixed with chur ganja with the object of increasing the intoxicating power of the drug. Nothing like bhang massala is prepared and sold for being mixed with any of these drugs.

30. Ganja is mostly consumed in company, and only the high caste classes consume it in solitude for avoiding public censure. The consumption of ganja is mostly confined to the male sex, and in a few cases women too consume it. Children, on the contrary, never consume ganja. There is no restriction of age observed in the consumption of ganja.

31. The habit of consuming these drugs is easily contracted by keeping company with the consumers of ganja, and it is very difficult to break off the habit when it is once formed. There is a tendency in the case of ganja for the moderate habit to develope into the excessive, because the intoxication brought on by the drug is so exhilarating that the smoker yearns for more, and thus goes on increasing his allowance.

32. There are no social or religious customs in regard to the consumption of any of these drugs. But chur ganja is drunk for the sake of pleasure by a very few people on the Hindu Shivaratri and Holi holidays, and on the new year's day in the form of ghota, which is an admixture of ganja, sugar, and poppy juice. The drinking of ghota on these days is not a custom. The use of the drug is not regarded as essential. It is

generally temperate. It is not likely to lead to the formation of the habit, and is not otherwise injurious.

33. In this district those who make use of ganja as an intoxicating ingredient are regarded as men of a lower social grade, and their actions are severely criticised. There is a public opinion, but not so strong as before. As the consumption of intoxicants is prohibited according to the Hindu religion, those who consume them incur a certain amount of odium. The use of any form of the narcotic is generally in disrepute on account of religious sentiment. There is no custom of worshipping the hemp plant in this district.

34. It will be a serious privation to those who are habituated to the excessive consumption of the drug to forego its use. The consumers would suffer from illness when they are deprived of the drug they are accustomed to. They will not be able to take their ordinary meals, and will get emaciated. The probable number of ganja consumers will be one per cent. of the total population.

35. It will be feasible to prohibit the use of these drugs. The drug would be consumed illicitly. The use of ganja can be effectively prohibited by putting a stop to its cultivation. The prohibition will occasion serious discontent among the consumers. Such discontent will not amount to a political danger. Most of the consumers are said to have become cowards by the use of the hemp plant. It is impossible to say that the prohibition will be followed by recourse to alcoholic stimulants or other drugs. But the probabilities are that recourse will be had to alcoholic stimulants.

36. There is no reason for thinking that alcohol is now being substituted for ganja.

37. Charas smoking is not practised in this district.

38. Round ganja is not imported here for sale. The flat ganja is considered more intoxicating than the chur ganja.

39. Smoking is considered more injurious than drinking or eating any of these drugs, as the smoke affects the brain more quickly than eating or drinking.

40. Native doctors substitute on rare occasions ganja for chloroform on account of the medicinal qualitities of the former. Ganja is also utilized in the treatment of cattle disease.

41. The moderate use of ganja is beneficial in its effects—

(*a*) as a food accessory and digestive;

(*b*) to give staying-power under severe exertion or exposure, and to alleviate fatigue.

(*c*) It is a popular belief here that the use of ganja in malarious and unhealthy tracts is a febrifuge and preventive of disease.

About 5 per cent. of manual labourers use ganja for its above-mentioned properties. It is the moderate occasional use of the drug I refer to.

42. No answer is required, as the answer to 41 is in the affirmative.

43. Moderate consumers of ganja are inoffensive to their neighbours.

44. The immediate effect of the moderate use of ganja on the habitual consumer is that it is refreshing, and that it produces immediate intoxication, alleviates fatigue and creates appetite, but it does not allay hunger. The intoxication produced by ganja lasts for an hour. Its after-effects are generally attended with various emotions, such as the heaviness of the eyes and the production of cold. The want of subsequent gratification produces uneasiness and longing for the drug.

45. The habitual moderate use of ganja produces noxious effects on the consumer's mind, conduct, and physique. It impairs the constitution and injures the digestive system. It causes bowel complaint and bronchitis and asthma, but not dysentery. It impairs the moral sense, and induces laziness and diminishes the power of understanding. It does not induce habits of debauchery, but creates insanity, which is temporary, and which is removable by the discontinuance of the use of ganja. The symptoms of insanity will be reinduced by the use of ganja after liberation from restraint. The eyes of the consumer grow red, and he presents the appearance of one deeply absorbed in meditations. Instances of insanes who have no recorded ganja history confessing to the use of the drug are not known. He who makes use of ganja to obtain relief from his mental anxiety or brain disease is likely to become insane very soon. There is no evidence to indicate that insanity tends to indulgence in the use of ganja by a person of weakened intellect.

An account of some cases is given below:—

(1) Nanesahib *alias* Hasansab wallad Ghudusab Neeliwale of Dharwar was a peon in the office of the Dharwar Municipality, and was not in good terms with the Sanitary Inspector of that municipality. The peon was in the habit of smoking ganja. He was reported to his superiors for some fault. The peon, thinking that he would lose his appointment, proceeded on leave from 1st August 1889, and commenced to smoke ganja intemperately. He began to show signs of insanity in the month of December 1889. Nanesahib, being still in the habit of smoking ganja, continues in his state of insanity, and abuses those who speak to him. He is now thirty years old.

(2) Halpa bin Fakirapa was a measurer in the Survey Department of the Bombay presidency. Being of weak constitution, he could not bear the cold climate of malarious districts. He therefore took to ganja smoking as a preventive of sickness. But by degrees he increased his doses, and consequently he became insane. He was therefore removed from service. He now resides at Dharwar and still smokes ganja, and has become a confirmed insane. His age is now about thirty-five years.

(3) Jinapa bin Appana Upadhya, a Jain priest of Dharwar, was adopted by one Appana Upadhya, who left him nothing. Jinapa, having received nothing either from his natural or adopted father, took to ganja smoking. As he was not able to recite mantras of the god Jin, he was not employed in performing religious ceremonies. He therefore spent much of his time in smoking ganja. Within six months he became insane on account of smoking ganja. Since the last four years he has been residing at Dharwar. He is now smoking ganja intemperately.

46. All the abovementioned noxious effects are

produced much sooner by the habitual excessive use of ganja than by its moderate use.

47. The habitual moderate use of ganja is not a hereditary habit, and does not affect the children of the moderate consumer.

48. The longing for ganja is not hereditary, and has no effect on the children of the excessive ganja consumer.

49. Ganja is used by some persons as an aphrodisiac. It is so used by some prostitutes. The use of ganja for this purpose is more injurious than its use as an ordinary narcotic. It weakens the human body, and consequently brings on impotence.

50. The excessive use of ganja for the above purpose sooner produces deleterious effects than its moderate use.

51. Of the bad characters, most gamblers are moderate ganja-consumers. The general commission of crimes has no connection with the consumption of ganja.

52. Even in the case of excessive consumption crimes are not committed.

53. Even the excessive consumption of ganja does not incite to unpremeditated crimes, and there are no instances in which indulgence in ganja has led to temporary homicidal frenzy.

54. Criminals do not use ganja to fortify themselves to commit premeditated acts of violence or other crimes.

55. It is customary for criminals to induce their victims to partake of ganja and so stupefy them in order to further their bad designs. But complete stupefaction cannot be induced by ganja without admixture. Dhatura is mixed with it to produce complete stupefaction.

56. The effects of ganja used (*a*) in moderation and (*b*) in excess, are not modified by the admixture of other substances. Those who require strong narcotics mix dhatura for their personal use or for administration to others.

57. Ganja is not eaten or drunk to any great extent in this district, and hence no more information than what has already been given can be supplied.

58. The present system of excise administration in respect of hemp drugs has been working well.

59. Requires no improvement.

60. Ganja is not produced in this district.

61. Charas is not produced in this district.

62. The cultivation of the hemp plant for the production of bhang should be controlled by issuing licenses for its cultivation and for the preparation of bhang.

63. There is no objection to the present system of the vend of ganja.

64. No objection.

65. The taxation of ganja is reasonable with reference to other intoxicants.

66. It is not necessary that there should be different rates of taxation for different kinds of ganja.

67. There is no objection to the present method of taxing ganja.

68. There are no houses or shops licensed for the sale of these drugs or their preparations, where they may be consumed on the premises.

69. Before a shop is opened in any locality the wishes of the people are consulted Their opinions are received through the mamlatdar of the taluka in which the shop is to be opened. Local public opinion ought to be given weight to.

70. There are no facts regarding the smuggling of hemp drugs from Native States into the district of Dharwar.

Oral evidence.

Question 1.—My personal experience is very limited. I have seen a few smokers and no more.

Question 29.—The matter of using dhatura is not within my personal knowledge. I am told that people who want much intoxication mix dhatura: not the vendors.

Question 45.—The cases here recorded have not been under my personal observation. What I have recorded about them is received from one who was formerly a ganja smoker, and having been punished for an offence did not resume the habit on release. I can add nothing to the particulars given of these cases. I do not know that the offence committed by my informant was connected with ganja. He gave up the habit because it was broken by his long confinement and for no other reason.

Question 59.—I have served in Ahmednagar, Satara and Poona, where ganja is cultivated. It was fifteen years ago. The ganja is sold to vendors in British districts. Cultivators can only sell to such vendors. I do not think any of it goes to Hyderabad; but I do not know contractors could not send it without a permit. Dharwar ganja comes from both Satara and Ahmednagar.

---

30. *Evidence of* Rao Bahadur Bapuji Mahipat Kharkar, *Kayasth, Huzur Deputy Collector and Magistrate, 1st Class, Satara.*

1. My answers are based upon personal observations and local enquiries made in my official capacity as Huzur Deputy Collector and Magistrate, 1st class.

2. The definitions of charas and ganja as given here are applicable to this district. The term *bhang is restricted to* what falls off in handling *ganja. Only the flat* variety of ganja is prepared *and sold in this district.*

3. I do not know of any.

4, 5 and 6. *I do not know.*

7. The hemp plant is cultivated in the Satara district for the production of ganja alone. About 300 acres of land are under cultivation in the Khanapur taluka, and not more than 15 acres in the Khatav and Satara talukas.

8. There is no appreciable increase or decrease in the area under cultivation.

9. The soil for cultivating ganja is prepared by putting proper manure therein till the Ashád (about July). The preparation of soil is similar to that for the cultivation of sugarcane. The ganja seed is obtained at the rate of half to one seer (local measure) per rupee, and it is generally

brought from Nagar in the Ahmednagar District. It also can be had in the ganja-producing villages of this district. The seed is of blue colour, and in form resembles the Argad seed, but is little flattened. At the time of sowing the seed, the soil, which has already been tilled, is first made level, and the next day the seed is sown into it in a row by means of a bamboo pipe fixed to the plough. The rows are about a cubit and a half (three feet) apart from each other. The seed is sown in the rainy season at the time when the Punarwasu Nakshatra sets in. About one and a half to two seers of the seed is required for the cultivation of one acre of the soil. Fifteen days after the sowing of the seed the field is weeded with the implement called kolpe, and then after 8 days the field is weeded with the hand. The same process (weeding with the hand) is repeated every fortnight. By these processes the spontaneous growth of weeds is prevented between the rows of the crop. The intervening space between the rows of the crop is made soft and crumbly by repeatedly turning it over with a kolpe at intervals of 15 days at a time. This conduces to the growth of crop and consequent budding. It is necessary for the cultivator to engage a servant at a cost of about Rs. 8 a month, a fortnight after the sowing of the seed. The duty of the servant is to go through the crop daily, and to remove all male plants and plants affected with the following vegetable diseases. The plants are generally affected by them at the top :—

(1) Andia rógh.—Very small organic molecules are formed on the top of the plants. This disease generally affects the plants in the beginning of their growth, and lasts for about a month.

(2) Haldia rógh affects the plant by producing yellow colour on the tops, and lasts till the full growth of the crop.

(3) Charka rógh is at the top.—Makes the flower yellow, and lasts to the end.

(4) Sheora rógh.—White flowers grow on the "boot" (flower top portion).

(5) Punda.—The seed is formed in the "boot" and which afterwards produces flower.

(6) Aradnár.—From the stock to the top of the plant small buds are formed, which give rise to white flowers.

(7) Kapsha rógh.—It whitens the plant.

The process of removing the affected plants is continued for about three months. On the whole, when the agglutinated flower tops are formed, the ganja is produced, but when seed is formed, the crop becomes useless. When the plants become three months old, they give rise to "bónd" or "kali," and after this they are subject to another disease called móra, which causes the breach of the bónd, wherein seed is formed. When the bónd is formed, the plant is taken out of the soil and ganja is prepared. The leaves of the plant are broadened in proportion to the growth. The plant rises to about 2½ to 4 cubits. When the plants with bónds (flower tips) on them are removed from the field, their bónds are nipped and trodden down under foot for four days on clean ground, and then they are collected and packed up. When ganja is thus prepared, it is fit for sale. One man can prepare a maund weight of ganja within four days by the above process. Six showers of rain are sufficient for a good crop of ganja; if there is want of rain, the crop is to be watered artificially at intervals of 15 days. No rain is required at the time of nipping the bónd. If there is rain at the time, the bónd will not retain the resinous matter, and the ganja becomes of inferior quality. The plants themselves serve the purpose of fuel, they being of no other use.

At the time of sowing ganja, the seed is thickly sown, as 75 per cent. of the plants, being male plants and affected with diseases, are required to be removed, and only the remaining 25 per cent. produce ganja.

At the beginning of Márgashirsha the ganja crop is fit to be removed from the soil, which can then be utilized for sowing wheat, gram, etc. The same soil can be appropriated every year for the crop of ganja if manure is used every year.

10. Hemp cultivators are of the class of agricultural cultivators.

11. No.

12. I have no information.

13. The cultivation is not restricted to any particular area. The growth of the ganja plant requires black soil, hot climate, and moderate rainfall.

14. Ganja alone is prepared in this district. About 2,400 Bengal maunds of ganja are prepared in the talukas of Khanapur, Khatav, and Satara. Bhang is not specially prepared. It is the powder that falls off in handling ganja, and is used in preparations such as majum, ghótá, doodhia.

15. Wild hemp is not known in this district, and my reply refers to cultivated hemp.

Ganja is used for smoking alone. About half a tola of ganja is well washed and well beaten on the left palm with the right thumb, and quarter of a tola of tobacco is mixed with the ganja, and the mixture is smoked.

The powder that falls off from ganja is called bhang, of which the following preparations are made :—

(1) Ghótá or kusumba or doodhia or ludhia : these are all names of the same drink. One tola bhang is crushed into powder with a stone, with water added to the powder. It is made up into a ball and put into a clean pot. The following articles are added to it : 40 tolas of milk, 20 tolas of sugar, 1 tola poppy-seed, ¼ tola of cardamom, 2 tolas of almond. Little pepper is added to the mixture. This quantity of mixture is usually drunk by one man.

(2) Majum, otherwise called yákuti, is prepared of bhang for eating in the following manner : 40 tolas bhang is boiled in 80 tolas of ghee. It is then strained and the refuse thrown away. The strained ghee is then mixed up with 8 ℔ of boiled sugar. It is then cooled in a broad and shallow pot. It becomes solid, and is cut into pieces.

16. Bhang is generally prepared by people in their houses.

17. The preparations are made by the persons who use them. The preparations are not sold, except the preparation of bhang called majum or yákuti. The preparation is sold by license-holders alone.

18. Charas is not in use in this district. Bhang and ganja deteriorate if kept longer than 18 months. They become quite useless after two years, and after that period they are simply useful as manure.

19. Ganja and charas are used for smoking only.

20. Charas is not used here. Ganja is smoked by all classes of the native community in this district. The proportion is about 5 per cent. in the whole district.

21. Only flat ganja is used in this district.

22. Not in use.

23. Not used for smoking.

24. Higher classes of the Hindu community drink bhang, especially on certain fast days in the district—about 1 per 1,000.

25. There appears neither increase nor decrease in the use of this drug.

26. Ganja smokers—

(*a*) 80 per cent.
(*b*) 10 per cent.
(*c*) 5 per cent.
(*d*) 5 per cent.

} This is an estimate based on enquiries.

All bhang drinkers come under the head of occasional moderate consumers.

27. These people come from all classes of the native community, and the habit is induced by association.

28. (*a*) Two tolas and 6 pies respectively.

(*b*) Five tolas and 1¼ annas respectively.

29. Dhatura is mixed up with ganja very rarely to secure highest possible intoxication. There is no bhang massala sold in this district. Please also see answer to No. 15.

30. The consumption of these drugs is, as a rule, practised in company. It is mainly confined to the male sex, not to women or children.

31. The answer is in the affirmative.

32. There is no social or religious custom in regard to the consumption of any of these drugs. It has, however, been the fashion with the higher classes of the Hindu community, generally of the orthodox type, to drink the bhang preparation on the Máhá Shivratra holiday, a day sacred to god Shiva, with whom this drug was considered a great favourite. But this does not lead to the formation of any habit.

33. The consumption of each of these drugs is generally regarded with disfavour on account of the tendency to develop into the excessive and consequent bad effect.

34. It would be a serious privation in the case of fakirs, bairagis, and singers. But this class will not number more than one thousand souls in this district.

35. The use of these drugs can be prohibited by preventing cultivation of the plant. No serious discontent would be caused, at least in this district. But unless the prohibition be general, illicit consumption would be the result.

36. I do not think that alcohol is being substituted for any of these drugs.

37. Cannot answer.

38. Cannot answer. Only flat ganja is used in this district.

39. Ganja smoking is considered more injurious than bhang drinking.

40. Bhang is used by native doctors in cases of stomach-aches, and is given to horses to prevent cold.

41 and 42. I do not know.

43. These persons are inoffensive to their neighbours.

44. Ganja smoking in the case of habitual consumers is refreshing, produces intoxication, allays hunger, and creates appetite. The intoxication from ganja smoking lasts for about three hours. The intoxication from bhang drinking lasts for twelve hours.

45. Moderate use of bhang drink and ganja smoking does not appear to bring about any of these results.

46. Excessive ganja smoking appears to bring on craziness of mind bordering on insanity. I sent one Hari Trimbak Ranade to the Lunatic Asylum, Poona, on the 11th January 1892. He was given to excessive smoking of ganja before his insanity, and this is said to be one of the causes that brought on the insanity.

47. The habitual moderate use of ganja or bhang does not appear to be a hereditary habit. It does not affect the children of moderate consumers.

48. Ditto as regards excessive consumers.

50. Excessive ganja smoking is said to produce impotence.

51 and 52. As a rule, the criminal tribes, such as Mangs and Ramoshis, seldom use any of these drugs. I do not think the moderate use of these drugs has any connection with crime in general or with any special crime.

53. Excessive indulgence resulting in insanity incites to unpremeditated crime. I do not know of any case leading to homicidal frenzy.

54. These drugs are not used by criminals in the manner specified.

55. I have not heard of any such instances on enquiries made.

Complete stupefaction can, I hear, be brought about by the admixture of dhatura with the preparation of bhang called yakuti.

57. Not eaten or drunk in this district.

58. The present system works well.

60. Ganja is produced in this district. The plantation and process of manufacture of ganja are sufficiently controlled.

61. Charas is not produced in this district.

62. No such cultivation in this district for bhang alone.

63 and 64. No.

65. I think it is reasonable.

66. Only the flat kind of ganja is so sold in this district.

67. No.

68. There are no such houses for consumption on premises.

69. The wishes of the people are consulted. The opinion of the villagers of the village where a shop is to be opened is obtained by the Collector through the mamlatdar before a new shop is opened.

70. Duty is paid in respect of ganja consumed in this district.

31. *Evidence of* Rao Bahadur Rango Ramchandra Bhardi, *Deputy Collector and Native Assistant to the Commissioner, Poona, Central Division.*

1. I am a native of the Southern Mahratta country, for which I have to give evidence, and have served Government in different capacities in the revenue branch for more than ten years in that country. I have spent nearly the whole of that period in the Dharwar district. I have served only for a few months in the Belgaum and Bijapur districts. During almost the whole period of my service in the Dharwar district I was a travelling officer. I had then opportunities of knowing the habits and customs of the people of that district; but cannot say that I then acquired such knowledge of the subject as would enable me to answer fully and properly the questions put to me by the Commission. I am framing my answer to the questions from the results of the enquiries that I have recently made under the directions contained in paragraph 1 of Government Resolution No. 6601, dated the 11th September 1893, Revenue Department.

2. Dr. Prain's definition of ganja and charas may be accepted for the Southern Mahratta country. Ganja which is sold in that province is flat ganja. Round ganja and chur or broken ganja are unknown in that province. The definition of bhang as given by Dr. Prain does not hold good in that province, as ganja which is reduced to powder either at the time when flat ganja is prepared or subsequently when it is deposited in bags or packages is sold as bhang there. Bhang is locally known among the Canarese-speaking people by the name of *bhangi*.

3. The hemp plant does not grow spontaneously in any of the districts of which I have knowledge.

4, 5 and 6. *Vide* answer to the preceding question.

7. Yes; for production of only ganja and bhang. The cultivation of the plant for that purpose is carried on only in the Bijapur district, and to a very small extent. The area under such cultivation in that district was 13 acres in 1892-93, 3 acres in 1891-92, and only 1 acre in each of the preceding three years. In the Dharwar district the plant is not at all cultivated, and in the Belgaum district only 2 acres were under its cultivation in the year 1889-90. Since that year there has been no cultivation of the plant in that district for any purpose.

8. The figures given in the answer to the preceding question will show that the area under such cultivation is itself inconsiderable.

9. *Mode of cultivation.*—The land in which ganja is to be grown is first ploughed with a heavy hoe called *ukki kunti* and levelled. Ganja seed is then drilled in it in July or August, the process of sowing resembling in every respect that of sowing ordinary jowari, but the space between the rows being wider. If rainfall be not sufficient, the crop is watered once or twice a week. Generally hand-weeding is resorted to in addition to the use of a *yedi kunti* or grubber. When the plants grow to a height of about two feet, the operation of selecting and uprooting the male plants by experts commences with a view to protect the female plants from running into seed and thus damaging the entire crop. When the plants grow to maturity, which requires a period of about four months, the flowering tops and leaves are cut off. The height of a ganja plant ranges from 6 to 8 feet.

10. No; they are of the same classes as other agricultural cultivators.

11 and 12. No.

13. The cultivation of the hemp plant for ganja is, as already remarked in my answer to question No. 7, carried on now to a very small extent only in the Bijapur district. I am told that only garden or irrigated land is fit for the cultivation of the hemp plant for producing ganja, and that localities where rainfall is heavy are unsuited to it. I am unable to state what other special conditions are necessary for the cultivation of the plant. The only part of the Southern Mahratta country where the cultivation of the plant would be impossible seems to me to be the western portion of the Belgaum district and the western and the southern portions of the Dharwar district.

14. Yes; only ganja and bhang are prepared, but to a very small extent, in the Bijapur district. Charas is nowhere prepared in the Southern Mahratta country.

15. *Manufacture of ganja and bhang.*—The flowering tops and leaves cut from the plants are stacked in a place and trodden while in a green state for three or fourd ays, and, when dried, they are winnowed. The flowering tops flattened constitute what is known as flat ganja, and the powder formed during the process is used as bhang.

Preparation of ganja for smoking.—After the seeds and stems are picked out of flat ganja, it is soaked in water and well cleansed. Then the water is pressed out of it to the last drop, and it is mixed with tobacco and smoked.

Use of bhang for eating majum in Dharwar.—Bhang is levigated in a mortar with milk, and then strained through a piece of cloth. This strained liquid, with powdered nutmeg, mace, saffron, and other spices, is mixed with simple syrup prepared fresh. The mixture is then spread on a wooden stool, and when it becomes hard it is cut into pieces.

Majum in Hubli.—Bhang, on being fried in a little of ghi, is nicely pounded and passed through a piece of cloth. The powder, which is called fakki, is then mixed with syrup prepared fresh. The mixture is spread on a flat stone, and when it becomes hard it is cut into pieces.

The mode of preparing majum adopted in the Southern Mahratta country, as described above, materially differs from that adopted in Poona, which is as described below.

Ganja mixed with ghi, in the proportion of 2 seers to 1 seer of ghi, is boiled in water in a wide-mouthed vessel. Water is from time to time poured into it as it evaporates. After about 12 hours the decoction turns green, which is an indication that the ganja is well boiled. The decoction is then strained through a piece of cloth, and the ghi, which comes up when the decoction is cooled, is used in preparing majum, yakuti, gulkand, and shrikhand.

Majum and yakuti are cakes made of ghi thus prepared and syrup mixed with different kinds of spices and nutritious substances, and shrikhand is made of ghi prepared as described above and jaggery boiled. Yakuti differs from majum only in respect of its containing saffron, which gives it a yellowish colour.

Gulkand is conserve of roses mixed with ghi prepared as described above.

The only kind of sweetmeat known in the Southern Mahratta country is majum. The sweetmeats known in the Deccan by the names of yakuti, shrikhand, and gulkand are unknown in the Southern Mahratta country.

Preparation of bhang for drinking ghota.—Bhang is levigated in water, and this levigation is strained through a piece of cloth. Poppy seed is also levigated and mixed with the liquid bhang. Sugar and powder of cardamom, nutmeg, mace, black pepper, saffron and ginger are also added to the mixture. This mixture is used by rich persons, while the poor substitute jaggery for sugar, and do not make use of the spices. This mode of preparing ghota is adopted in the Dharwar district, while in the Bijapur district bhang is parched a little before it is levigated for the preparation of the drink.

Boja.—Some years ago an intoxicating preparation made of jowari mixed with bhang, called boja, used to be sold in the Dharwar district under a license. It was then used chiefly by Muhammadans, Holers (Mahars), and Bedars (Ramoshis). The form of preparing and selling that drink is not now sold. As the mode of preparing it entails a good deal of trouble, I believe it is not now much used by the people.

16. No; bhang is purchased from the persons licensed to sell it. As stated in my answer to question No. 2, it is only the powder of ganja found in the bags or packages containing the latter drug, and is less efficacious and cheaper than ganja itself. Bhang can be prepared from the hemp plant wherever grown; but bhang prepared from the plant growing in a place not specially fit for its cultivation is considered to be inferior in quality. As stated in my answer to question No. 3, the wild plant is not grown anywhere in the Southern Mahratta country.

17. The preparations of the hemp drug are not restricted to any particular classes of the people. The people of any class can prepare them. The persons who grow the plant prepare ganja and bhang. The persons having licenses to sell the drug or their servants make the preparations of the drug for eating. Generally the preparations for smoking and drinking are made by the persons using them in their own houses.

18. Ganja and bhang deteriorate by keeping. They keep good with ordinary care for about a year. They quite lose their effect after two years. No particular causes of deterioration can be assigned. The drugs naturally lose their efficacy and become unfit for use after the lapse of time, as above stated. It is said that the deteriorated drugs, if used, produce an unpleasant sensation of heat in the stomach. No special measures can be taken to prevent deterioration. As charas is not much used or tried in this part of the country, nothing can be said as to how long it keeps good with ordinary care and why it deteriorates by keeping.

19. Charas is rarely used, and it is used only for smoking. Ganja is used for smoking as well as for preparing medicines. It can be said that it is used also in preparing a kind of sweetmeat known by the name of majum, inasmuch as bhang, which, it is stated, is used in preparing that sweetmeat in the Southern Mahratta country, is nothing but ganja reduced to powder accidentally.

20. As stated in my answer to question No. 19, charas is rarely used. Good many people smoke ganja in all the districts in the Southern Mahratta country. The classes of the people who smoke it are generally bairagis, gosávis, fakirs, sants, weavers, labourers, and menial servants, mendicants who travel about the country, and musical performers of lower classes. It is difficult to estimate even approximately the proportion of the people smoking ganja, inasmuch as ganja and bhang are sold under one license, and information relating to the quantity consumed of each of these drugs separately is not available.

The latest year for which information relating to the quantity of ganja and bhang consumed is available for all the three districts is 1891-92. During this year the quantity consumed in the Dharwar district was 1,110 maunds and 17 seers, *i.e.*, 1,11,034 tolas. This gives 3,042 tolas per diem. Taking three-fourths of a tola as the average quantity consumed per diem by a habitual moderate consumer, the total quantity consumed per diem, *i.e.*, 3,042 tolas, gives 4,056 as the approximate number of habitual moderate consumers in the Dharwar district, *i.e.*, ·82 per cent. of male adult population (497,100). As the number of habitual excessive consumers is small and cannot be ascertained, it is left out of consideration. Estimated in the same way, the proportion in the Bijapur and Belgaum districts is ·10 and ·14 per cent., respectively.

21. Only flat ganja is used for smoking in the Southern Mahratta country.

22. As already stated, charas is rarely used. What is used is foreign, and is imported, it is said, from Poona.

23. Bhang is rarely used for smoking. It is used for that purpose only when ganja cannot be had, which seldom happens.

24. People of all classes in all the districts use bhang for eating or drinking. It is difficult to say, for the reasons given in my answer to question No. 20, what proportion of the people use it for those purposes. It is used more extensively for eating in the shape of a kind of sweetmeat called majum than for drinking. But the number of people using the drug either for eating or for drinking is not, I believe, so large as that of people using ganja for smoking.

25. I can say unhesitatingly that the use of ganja and bhang is on the increase in the Dharwar district. The quantity of the drugs consumed in that district during the year 1891-92 was more than thrice as much as the quantity consumed in that district during the year 1883-84—*vide* statement hereto appended. Further, the amount of license fees realised in that district during the past year, 1892-93, as compared with that for the year 1883-84, represents an increase of more than 76 per cent—*vide* statement above referred to. This increase is no doubt due partly to the increase in the population during the past ten years, which is about 19 per cent. But considering that, as reported by the mamlatdars of Dharwar and Hubli in that district, there has been no rise in the retail sale price during the past ten years, I conclude that the increase in the revenue is chiefly attributable to the increased use of the drugs. The figures for the Bijapur district as regards the quantity of the drugs consumed are available only for some of the past ten years, and they show a decrease in the quantity consumed lately. But the amount of the license fees realised in that district during the past year, 1892-93, as compared with that for the year 1883-84, represents an increase of more than 178

per cent., and as compared with that for the year 1888-89, shows an increase of more than cent. per cent. This increase may be due to some extent to competition, and is no doubt partly due to the increase in the population, which is about 24 per cent.; but, as it is reported by the mamlatdar of Bijapur that the retail sale price has been uniform since 1887-88, I conclude that the increase in the revenue is to a great extent due to the increased use of the drugs in this district too. For the Belgaum district information as regards the quantity of the drugs consumed is available only for the last two years. No conclusion can be drawn from this information. The amount of the license-fees realised during the past year, 1892-93, as compared with that for the year 1883-84, represents an increase of more than 44 per cent.; but the increase during the preceding three years was not so high: it was only 16 per cent. The retail sale price is reported to have risen from 8 annas to 10 or 12 annas per lb since 1891-92. Considering the increase in the population, which is about 17 per cent. during the past 10 years, and the rise in the price lately, I am not prepared to say that the use of the drugs is on the increase in this district.

26. It is difficult to estimate the proportion, but I can say only that habitual excessive consumers and occasional excessive consumers are considerably few. Occasional moderate consumers are also few. A large number of the consumers is, I believe, made up of habitual moderate consumers.

27. Habitual excessive consumers are mainly taken from bairagis, gosávis, and fakirs, and habitual moderate consumers belong to these and other classes of the people mentioned in my answer to question No. 20. Occasional moderate consumers and occasional excessive consumers will be found in any class of the people; but, as already remarked, such consumers are, I believe, considerably few in number in the Southern Mahratta country. The habits of bairagis, gosávis and fakirs, who are generally habitual excessive consumers, are well known. They are the most indolent and useless persons in the world. They wander about the country begging, and indulge in the use of the drugs. Many illiterate persons acquire the habit of using the drugs with the association of these beggars. Some acquire the habit by using the drugs on account of their medicinal qualities. Some acquire it by using the drugs under the belief that they produce concentration of thoughts. People of the working class and musical performers acquire the habit by using the drugs as stimulants alleviating their fatigue. Such people are generally habitual moderate consumers. Occasional moderate or occasional excessive consumers are generally persons who use the drugs on Maha Shivratra, or such other days on which they are prevented by their religion from resorting to alcoholic stimulants. Some of this class of consumers happen to use the drugs when offered by their friends or acquaintances, who are either habitual moderate or habitual excessive consumers.

28. The average allowance and cost of ganja and bhang per diem to each of the two classes of consumers is detailed below:—

(*a*) Habitual moderate consumers—

	Weight, tolas.	Cost, pies.
Ganja for smoking . . .	½ to 1½ .	3 to 9
Bhang for eating or drinking .	Weight cannot be ascertained .	2 to 4

(*b*) Habitual excessive consumers—

	Tolas.	Annas.
Ganja for smoking . . .	2 to 5 .	1 to 2½
Bhang for eating and drinking .	Weight cannot be ascertained .	4 to 8

Prices are not the same in the three districts. The figures herein given represent the maximum prices.

29. Tobacco is ordinarily mixed with ganja for smoking by all the classes of consumers. It is mixed with the object of lessening or removing the bitterness of the drug, which is supposed to produce cough, and with the object of tempering the effects of the preparation, and making it agreeable to the constitution. Sometimes cardamoms, nutmeg, mace and olibanum are mixed with ganja in addition to tobacco in order to have a fragrant smell. What ingredients are mixed with different kinds of preparation made for eating and drinking is mentioned in answer to question No. 15. Dhatura is mixed either with ganja for smoking, or with any preparation made of bhang for eating or drinking, only by habitual excessive consumers, in order to enhance the intoxicating quality of the drug.

No special preparation known by the name of bhang massala is sold for the purpose of being mixed with any of the drugs.

30. The higher classes of the people use the drugs in solitude or in company; but bairagis, gosávis, fakirs and other lower classes of the people do not care much for privacy while using the drugs. The consumption of the drugs is mainly confined to the male sex and to adults only. Children do not consume any of these drugs in the Southern Mahratta country.

31. The habit of consuming the drugs is easily formed among the illiterate people when they come in contact with the people making use of them, and it is difficult to break off. There is a tendency in the case of all of these drugs for the moderate habit to develop into the excessive.

32. No custom, social or religious, in regard to the consumption of any of these drugs exists in the Southern Mahratta country.

33. The consumption of any of these drugs is generally regarded as a vice. It can be said from the social point of view that the use of any form of the narcotic is generally in disrepute. The consumers of the drugs, except bairagis, gosávis, and fakirs, are ashamed to admit freely, when questioned, that they use the drugs. This itself is sufficient to show that the use of the drugs lowers the persons using them in the estimation of the public. A man speaking at random is generally compared to a ganja or bhang consumer. This sentiment of the people is attributable to the intoxicating qualities of the drugs, which affect more or less injuriously the physical and mental condition of the consumers when the drugs are immoderately used. No custom of worshipping the hemp plant on any occasion by any sect of the people exists in the Southern Mahratta country.

34. Yes; only to bairagis, gosávis, fakirs, and other excessive consumers. The only reason that I can assign is that these people are so much addicted to the use of the drugs that they care more for the drugs than for their food. I regret I am unable to state, even approximately, the number of such people. It is, I should say, considerably small in the Southern Mahratta country.

35. I think it would be feasible, or at least it

would not be impossible, to prohibit the use of the drugs; but it is not quite necessary to do so. The entire prohibition would, no doubt, cause serious discontent among the habitual excessive consumers, such as bairagis, gosávis, fakirs, and mendicants; but I do not think that such discontent would amount to a political danger, as such persons carry no influence with the public in general, and are limited in number in the Southern Mahratta country. Considering the baneful effect the use of the drugs produces on the mental and physical condition of the persons using them immoderately, I am humbly of opinion that it is absolutely necessary that the consumption of the drugs should be restricted as far as possible. If the drugs become dearer and scarce, the consumers will naturally be more economical and prudent than now in using them. The consequence will be that the number of excessive consumers will gradually decrease, and some of the moderate consumers will, perhaps, substitute tobacco for ganja for smoking. I do not think that any considerable number of such people will have recourse to alcoholic stimulants if further restrictions be placed on the consumption of the drugs.

36. No; I do not think that alcohol is now being, to any considerable extent, substituted for any of the drugs.

37. Charas is rarely used in the Southern Mahratta country; so nothing can be said of the effects it produces from smoking.

38. Only one kind of ganja is used in the Southern Mahratta country.

39. Only ganja is used for smoking, and smoking is considered as more injurious than drinking or eating any of the preparations of the hemp drugs, as it affects the brain quicker than drinking or eating.

40. Yes; ganja is used by native doctors in preparing medicines on diseases such as asthma, dysentery, diarrhœa, dyspepsia. It is used also in the treatment of cattle disease.

41. The moderate use of bhang for drinking or eating is stated to be, and may be, beneficial in its effects, as described in clauses (*a*) and (*b*) of the question; but I doubt whether the moderate use of ganja for smoking is beneficial in its effects in any way. Persons who actually consume the drug say that the moderate use of it is beneficial in its effects as preventive of disease in malarious and unhealthy tracts; but much reliance cannot be placed on their statements. They naturally extol the qualities of the drug they use. Generally the habitual moderate consumers of the drugs use them for the purposes mentioned above.

42. I consider the moderate use of bhang for drinking or eating is harmless; but I cannot say that the moderate use of ganja for smoking is harmless, as it is stated by a native medical officer that smoking affects the brain quicker than drinking or eating any preparation made of the drug.

43. Moderate consumers are inoffensive to their neighbours.

44. The immediate effects of the moderate use of any of the drugs is stated to be refreshing for a time. It produces intoxication. It allays hunger for a time, *i.e.*, while the consumer is under intoxication. The effect of smoking is stated to last for two or three hours; but that of eating or drinking any of the preparations made of the drug is stated to last even for a day. The after-effect is stated to be drowsiness. The want of subsequent gratification does produce longing or uneasiness.

45. In giving information on this subject, a native medical officer in the Dharwar district states:—"Even the moderate use produces noxious effects, physical, mental, and moral. It impairs the constitution by making it lean (absorbing all fat); prolonged use makes the digestion bad. It causes bowel complaint and bronchitis. It induces laziness, deadens intellect, and produces insanity in some cases. It causes mostly permanent derangement of the brain." I think that officer's statement, quoted above, applies to ganja. Some of the persons whom I have consulted in Poona say that the habitual moderate use of any of the drugs does not produce any noxious effects —physical, mental, or moral—provided the consumer is well fed. I can say that, at least in the case of poor people who hardly get sufficient nutritious food, the habitual moderate use of ganja for smoking, to which only they are generally addicted, produces the noxious effects as described above.

46. The habitual excessive use of any of the drugs does, in my opinion, produce noxious effects —physical, mental, and moral. Rao Bahadur Rudragowda Artal, District Deputy Collector, Bijapur, in his report on ganja, a portion of which has been quoted by the Commissioner of Customs, Salt, Opium and Abkari in his report No. 4752, dated the 11th September 1893, to Government, on this subject, states:—"Irrespective of the medical opinion or religious view regarding the use of the drug, I humbly beg to state that its use in the manner described by me has produced demoralizing effects upon the physical and moral condition of the ignorant masses, and in some instances to such an extent that I have seen persons becoming lunatics or half mad owing to the intemperate use of the drug, and whose families have been reduced in many cases to strait. A sort of frenziness or madness gains over the smokers, which makes them indifferent to worldly matters, and all energy and activity are lost for any work * * *. The baneful results have been that some of the smokers, when unable to work and support their families, abandon them to their fate and go abroad as sadhus or fakirs." From what I have seen and heard of the habitual excessive smokers of ganja, I fully endorse the opinion expressed by Rao Bahadur Rudragowda Artal.

47. No.

48. The habitual excessive use of any of the drugs also cannot be said to be a hereditary habit, and does not affect in any way the children of the excessive consumers.

49. It is stated that the drug is used as an aphrodisiac, and that few prostitutes use it. The use of the drug for this purpose is considered more injurious than its use as an ordinary narcotic, inasmuch as it gradually affects injuriously the procreative power. I have not got information as regards the form in which the drug is used for this purpose in the Southern Mahratta country; but I am told that preparations made of ganja for eating, such as majum and yakuti, are used for this purpose in Poona, and that persons using them drink milk after they use the sweetmeats. I am given to understand that the use of the drug in the form of sweetmeat for this purpose does not produce any injurious effect if milk be drunk after its use.

50. From what a bairagi in Poona said in answer to my question, I am led to believe that habitual excessive use of ganja for smoking produces impotence.

51. I do not think so. Neither the moderate nor excessive use of any of the drugs has any close connection with crime in general, or with crime of any special character.

52. *Vide* answer to question No. 51.

53. No; I am not aware of any case of the kind.

54. I do not think so.

55. It seems from what Rao Bahadur Rudragowda, District Deputy Collector, Bijapur, has written in his report, which is quoted by the Commissioner of Customs, Salt, Opium and Abkari, in his report to Government, No. 4752, dated the 11th September 1893, that criminals, in order to further their designs, sometimes induce their victims to partake of ganja mixed with madan-masta, madan-kamsi and dhatura, and so stupefy themselves. I do not think that complete stupefaction can be thus induced by this drug without admixture.

56. I am unable to answer this question, as I have not received proper information on this point.

57. Some years ago I had an occasion of observing the effects which the use of bhang for drinking produced on a novice. If I recollect well, the individual who used it began to act like a madman. When it seemed that he was highly intoxicated, he was kept in a dark room and given an antidote, which gradually restored him to his proper senses. I think he was only drowsy the whole night and had no sound sleep.

58. I consider the present system is capable of some improvement.

59. The only suggestions that I can make are (1) that the maximum quantity at present fixed, 40 tolas, for retail sale to, and possession by, one person, should be reduced to 10 tolas; (2) that minimum retail sale prices of the drugs should be fixed; and (3) that the rate of duty on import, export and transport of the drugs should be enhanced. I make these suggestions with a view to restrict the use of the drugs as far as possible for the reasons given in my answer to question No. 35.

60. Yes; I think so. The present system requires no modification in this respect.

61. Charas is not produced in the Southern Mahratta country.

62. No.

63. The only suggestion that I have to make is, as already stated, that the minimum retail sale prices of the drugs should be fixed.

64. In order to enhance the price of the drugs, I propose that the present rate of duty on import, export and transport of the drugs should be doubled.

65. At present ganja and bhang are sold under one license, and the rate of taxation on both the drugs is the same. The present taxation on the drugs, as compared with that on alcoholic and other intoxicants, is considerably light. I am of opinion that the minimum rate of retail sale price of ganja should be fixed at ₹2-8 per ℔., and that of bhang at 10 annas per ℔. The highest rate at which ganja is sold by retail is ₹1-4 per ℔., and that at which bhang is sold by retail is 2 annas per ℔. If the rates proposed by me be adopted, the drugs will be dearer and the consumers will naturally be more economic and considerate in using them than now.

66. Only one kind of ganja is produced in the Southern Mahratta country.

67. I consider the present method of taxing the drugs entails a very light incidence of the tax on the consumer, and I am of opinion that it should be improved, as suggested in my answer to question No. 65.

68. Sometimes consumers use drugs on the premises of the shops licensed for the sale of the drugs. I am of opinion that they should be strictly prohibited from using them there.

69. From the enquiries made it seems that the wishes of the people are consulted before a shop is opened, in some districts through mamlatdars and village officers. It is necessary that local public opinion should be considered invariably.

70. There are none. I think duty is really paid in respect of the drugs used. I cannot say that there is any general use of untaxed drugs in the Southern Mahratta country.

Statement referred to in the answer to question No. 25.

Name of district.	Year.	Total population.	Amount of license fees.	Quantity sold by retail		
				of ganja.	of bhang.	Of other preparation of the hemp plant.
			₹	M. S.	M. S.	M. S.
Belgaum	1883-84	864,014	2,731	...	...	...
	1884-85	Do.	2,844	...	...	...
	1885-86	Do.	3,223	...	...	...
	1886-87	Do.	3,372	...	...	...
	1887-88	Do.	4,031	...	...	...
	1888-89	Do.	3,960	..	...	...
	1889-90	Do.	3,136	...	...	...
	1890-91	Do	3,163	...	...	...
	1891-92	1,013,261	3,166	189-21	...	2-10
	1892-93	Do.	3,935	178-4	...	1-7
Dharwar	1883-84	882,907	6,107	346-5	...	2-33
	1884-85	Do.	6,255	496-14	...	1-14
	1885-86	Do.	6,086	692-24	...	2-24
	1886-87	Do.	7,505	840-28	...	2-40
	1887-88	Do.	10,500	849-5	...	0-35
	1888-89	Do.	11,025	880-42	...	7-25
	1889-90	Do.	11,000	833-16	...	2-23
	1890-91	Do.	9,550	1,117-2	...	...
	1891-92	1,051,314	11,180	1,110-17	...	...
	1892-93	Do.	10,800	...	...	...
Bijapur	1883-84	638,493	1,578	150-31	...	...
	1884-85	Do.	1,795	224-11	...	...
	1885-86	Do.	1,485	...	...	...
	1886-87	Do.	1,400	...	...	...
	1887-88	Do.	1,579	...	...	...
	1888-89	Do.	2,015	...	...	...
	1889-90	Do.	2,065	435-0	...	...
	1890-91	Do.	2,525	135-0	...	...
	1891-92	796,339	3,510	113-0	...	...
	1892-93	Do.	4,400	...	...	...

32. *Evidence of* Rao Bahadur Rudragowda Chanvirgowda Artal, *Lengayet, Deputy Collector, Bijapur.*

1. By coming in contact with the masses as well as by observing the health and conduct of persons addicted to the vice, and also by visiting places where sadhus or saints reside.

2. The definitions of ganja and charas herein given may be accepted as correct for this district. The ganja manufactured and sold here is flat ganja.

3. In none of the districts in the Southern Mahratta country the hemp plant grows spontaneously.

4. The plants do not grow wild here.

5 and 6. As the plant does not grow wild here, I am unable to answer these questions.

7. The hemp plant has been cultivated only at Bijapur on a very small scale for the production of ganja and bhang only for the last two years. Charas is not prepared here. The plant is grown in this part of the country as a narcotic and not as a fibre plant. The area sown in 1892 at Bijapur was about 13 acres.

8. The area under hemp plant in 1893 is only about 4½ acres. The reason for the decrease in the area under cultivation is due to the fact that there is a considerable stock in hand of the yield of the last year.

9. As regards the method of cultivation, I beg to refer to paragraph 3 of my report, No. 562, dated the 30th August last, printed at page 7 of the note submitted to Government by the Commissioner of Customs, Salt, Opium and Abkari, with his letter No. 4752, dated 11th September 1893.

10. The person who has been cultivating hemp plant for the last two years at Bijapur, is a marvadi, but not an expert. He has, however, secured the services of two experts from Lengria in the Satara district. Generally the agricultural cultivators do not know how to cultivate the plant; but the agricultural operations common to the production of this and other plants are carried on by the ordinary cultivators.

11. The plants are never cultivated in this district for the production of ganja from the seed of wild hemp.

12. As the plants do not grow wild in this part of the country, I am unable to answer this question.

13. The cultivation of the hemp plant is not restricted in this part of the country; but the cultivator cannot manufacture the drug without a license to be granted by the Collector on this behalf in the Form B, sanctioned by Government, and the drug can only be sold to persons duly licensed to sell the same by wholesale. I am not aware of any special conditions of climate, rainfall and elevation above sea level, but I think it can be grown in red or loamy soil as an irrigated crop. Except in parts of the Badami taluka where the soil is sandy and rocky, I am of opinion the plant can be cultivated as an irrigated crop with success in any other part of this district.

14. Yes; ganja and bhang are produced from the hemp plant cultivated at Bijapur. Charas is not prepared here. As regards the extent, I beg to refer to paragraph 4 of my report above quoted.

15. *Vide* paragraphs 5, 8, 9, 10 and 11 of my report above alluded to. (*b*) The hemp plants do not grow wild here.

16. No; the people do not prepare bhang in their houses. Yes; it can be prepared from the hemp plant grown in any place. The last part of the question cannot be answered because the plants do not grow wild here.

17. By any class of people; but generally the Muhammadans prepare the majum or majun. The ghota is prepared occasionally by higher castes of Hindus.

18. Yes; they do. After about five years these drugs lose their intoxicating property, and become quite useless for consumption. The drugs can be kept in good condition with ordinary care for two years. So far as I can ascertain from the people who generally deal in these drugs, I learn that no special measures can be taken to prevent deterioration after two years.

19. Yes; charas is not at all used in this part of the country. Ganja is used only for smoking. As regards other uses of ganja and its seeds, I beg a reference to paragraphs 6, 13 and 14 of my report above quoted.

20. As regards classes, *vide* the concluding portion of paragraph 5 of my report.

The proportion of the ganja-smoking people is estimated to be 30 per cent. in the Sholapur, Satara, Ahmednagar and Poona districts, and 10 per cent. in the Southern Mahratta country.

21. Only the flat ganja is used in this district. I, however, learn that there is no difference in the intoxicating nature of the different kinds of ganja.

22. Charas is not at all used in the Bijapur district.

23. As far as I can ascertain, bhang is not used for smoking in this part of the country.

24. Generally the Muhammadans eat and drink bhang in the shape of fakki and ghota. The proportion of bhang-eaters (*a*) is estimated to be 1 per cent., and that of bhang-drinkers about 3 per cent. I have actually come across a Gondhali or a Joshiger at Dharwar who used to eat in my presence mere bhang powder mixed with cold water, then ground on a stone and made into small balls. If I remember right, I think he used to eat at one time from 20 to 40 tolas.

25. The use of ganja and bhang is on the increase, the rate of the increase being about 2 or 3 per cent. every year. This can be attributed to the fact that if there is a sadhu, an arudh or a fakir, making his residence in a certain locality, it is invariably the case that good many people living in the vicinity flock in numbers around him, and I have observed that such resorts are the chief rendezvous of ganja-smoking. This contagion is spreading every day with the increased facilities of communications, as the so-called sadhus are now able to wander from place to place without much inconvenience and trouble.

26. The following is the proportion of the consumers of the drugs:—

	Ganja.	Bhang.
(*a*)	about 5 per cent.	3 per cent.
(*b*)	„ 1 „	...
(*c*)	„ 3 „	1 per cent.
(*d*)	„ 1 „	...

27. Weavers, fakirs, gosavis and day-labourers mainly use these drugs. People who are total abstainers pay constant visits to the ascetics and thus come in contact with persons who are already addicted to the vice and thereby follow the example of their brethren.

28. It is said that an habitual moderate consumer requires daily 1 tola of ganja which costs him 6 pies, and an habitual excessive consumer requires 10 tolas which cost him about 5 annas, according to the rates now prevailing here. An habitual moderate consumer of bhang has to spend daily 1½ pies, and an excessive consumer 3 pies.

29. Tobacco is ordinarily mixed with ganja for the purpose of smoking. Cardamoms and

nutmegs are also occasionally mixed with ganja and smoked, with a view to increase the intoxicating power of the drug. I have actually seen a Bava at a place near my native place (Artal in the Dharwar district) smoking ganja mixed with opium; aconite powder and cast skin of a cobra capella. Dhatura is occasionally mixed with the smoking dose of the drug. As regards other ingredients mixed with various preparations of hemp, *vide* paragraphs 8, 9, 10 and 11 of my report. It is said that these admixtures enhance the power of intoxication.

30. It is mainly used by the male sex, but also to a very small extent by low prostitutes. If once addicted to the habit, a person finds it very difficult to give it up. It is not usual for children to consume any of the drugs, but when attacked by dysentery children are given bhang to drink.

31. Yes; it is easily formed. It is very difficult to break off. It is said that there is a strong tendency, in the case of these drugs, for the moderate habit to develop into the excessive habit.

33. The first aim of Hindu Theosophy is to secure the concentration of the mind, and it is the popular belief that this drug possesses the marvellous qualities of bringing on this effect. The drug is so far adored that it has received epithets in Sanskrit such as "cheedanand" and "siddhapatri", which literally mean "giver of delight to the mind" and "leaves endowed with supernatural powers", respectively. The higher classes who use the drug for this purpose hold that the use of the drug is conducive to health if it is cleaned thoroughly before using it and taken moderately.

The habitual use of these drugs is considered discreditable, and the habitual consumers are not as a rule respected and trusted. So far as I can ascertain, the plant is not worshipped in this part of the country.

34. Certainly it would be a serious privation to habitual excessive consumers of these drugs, as it is exceedingly difficult to break off the habit once contracted, though very probably beneficial. The probable number of habitual excessive consumers would be 8,000, *i.e.*, 1 per cent. according to the imperial census of 1891 (Bijapur district).

35. I do not think that it would be feasible to prohibit the use of these drugs altogether. Certainly it would be consumed illicitly unless the cultivation of the drug is prohibited also in the Native States. Undoubtedly the entire prohibition of the use of the drug would create serious discontent for a time at least; but such a sort of discontent would scarcely amount to a political danger. With some proper restriction these drugs should, I think, be sold for medicinal purposes by persons licensed by the Collector to do so; perhaps the entire prohibition of the drug may drive the habitual excessive consumer to the use of other drugs, such as dhatura seeds, aconite and nux vomica, which grow wild, and other stimulants such as opium, &c. I think it is very desirable that the use of these drugs should be restricted, if not entirely prohibited, by making them expensive through the imposition of heavy excise duty. Such a measure will keep these drugs out of the reach of the poor people who are generally habitual excessive consumers.

36. I do not think so. On the contrary, I should say the tendency is the other way, as there are religious objections to the use of liquors containing alcohol.

37. I am informed that the smoking of charas produces more intoxication than that of ganja, as it contains the active principle of the plant.

38. I am informed that no different effects in kind or degree are produced on the consumers.

39. It is said that the drinking or eating of the hemp plant is more injurious than smoking the same through a pipe.

40. *Vide* paragraph 12 of my report.

41. It is said that the moderate use of these drugs is beneficial in effects (*a*) as a food accessory or digestive. Its moderate use alleviates fatigue—I refer to the moderate occasional use.

42. It is said that the moderate occasional use of any of these drugs is harmless.

43. Yes; they are said to be inoffensive to their neighbours.

45 and 46. Yes; the habitual moderate use of these drugs produces noxious effects. It impairs the health of consumers, causes the loss of appetite, produces asthma. It does impair the moral sense, induces laziness and habits of immorality and debauchery. It occasionally produces insanity. In some cases it is temporary, and in others permanent. I have seen some persons going mad by the use of ganja. They shout loudly and walk sometimes naked in the open streets, and are quite indifferent to worldly matters.

47 and 48. The habitual moderate use of these drugs does not appear to be a hereditary habit, nor does it affect in any way the children of moderate consumers.

49. I am informed that the moderate use of these drugs is occasionally practised as an aphrodisiac. Yes, it is used both by prostitutes and their lovers.

50. I have heard that the excessive use of the hemp has produced impotence at the advanced age of consumers; but I think such cases are few and far between.

51. I am informed that bad characters are not as a rule moderate consumers of any of these drugs. The persons addicted to the vice generally do not commit serious crimes; but they commit simple assaults, and when they are in want of money to purchase the drug they commit petty thefts.

52. As a rule excessive consumers do not commit any serious crimes.

55. See paragraph 6 of my report.

56. See answer to question 29.

57. Ganja and charas are neither eaten nor drunk in this part of the country.

58 and 59. The present system of administration in respect of hemp drugs works well, but it is capable of further improvements, so as to restrict its use especially by the poor people; and I think the time has come now to put the drugs on the same footing as opium and alcoholic stimulants. The present rates of duty levied on transports, imports and exports are in my humble opinion exceedingly light, and with a view to keep these drugs out of the reach of the poor people I would suggest that heavier excise duties should be imposed both on the drugs prepared in the British territory as well as on those in the Native States. The drugs manufactured should be stored in a bonded warehouse or a depôt, to be issued, on payment of excise duty, only to licensed vendors, as is now done in the case of opium. Charas should have its own rate. The ganja is said to be of a greater strength than bhang, and they must therefore have separate rates of excise duty. The farm of a district should not be sold

to the highest bidder, as is now done invariably in every district, but separate shop licenses should be issued to applicants on payment of a fixed fee. To secure the efficient administration of the system, the right of selling the farm in the adjoining Native States will have to be purchased by paying compensation to the chiefs, as has been done in the case of country liquor.

60 and 61. As it is impossible to prepare or cultivate the drugs surreptitiously, there is no need for control.

62. As the cultivation of the hemp plant for the production of bhang is not separate from the cultivation of the plant for the production of ganja, no further control than that now exercised is needed.

63 and 64. See answers to questions 58 and 59.

65. No tax is at present levied on the preparations of these drugs, except the import and transport duties, in respect of which *vide* answers to questions 58 and 59.

66. Only flat ganja is prepared in this district, and I do not think it necessary that there should be different rates of taxation, because the different kinds of ganja do not differ materially in their strength.

67. The transport and export duties levied at present are merely nominal, and I would suggest that the present rates should be considerably enhanced.

68. There are licensed shops in this district where these drugs are sold, but there is nothing in the terms of the licenses granted prohibiting the use of these drugs on the premises of such shops.

69. Generally some sort of preliminary enquiries are made by the local officers without consulting the wishes of the inhabitants of the locality where a new shop is intended to be opened. If the local officers are of opinion that a shop is required at a particular place, it is generally sanctioned.

70. See paragraph 18 of my Report No. 562 of 30th August last. Probably people living on the borders of Native States buy their supplies from shops in the States, as it is said that these drugs are sold there cheaper than in the British territory. According to the present terms of the contract, a farmer or licensee is authorized to sell to one and the same person on any one day as much as 40 tolas. I think this limit is rather high, and it should be reduced to two tolas as has been recently done in the case of opium.

Oral evidence.

Question 1.—I am a Lengayet. We are followers of Shiva, and they say that unless we smoke ganja we cannot understand God or find out God. The sadhus and others say it is absolutely necessary for that concentration of mind required for this understanding of God. This understanding of God is not necessary to us all, but to our religious men. I believe there must be reference to this in the Shastras; but I cannot lay my hand on any passage. The Lengayets are a sect rather than a caste; and there are caste divisions within the sect. There are no Brahmins. It is a secession from Brahminism.

Question 2.— Bhang is merely powdered ganja in this part of the country. I have not seen bhang properly so called.

Question 20.—The percentages here are on adult males. The proportions for other districts are based on contractors' information. But for the Southern Mahratta country it is my own estimate; it may be a little high. It contains, however, the occasional consumers; and consumption is growing. The total ten per cent. under ganja in answer 26 is the ten per cent. of the population shown in answer 20. I have omitted there the percentages for other districts given in answer 20; for I know nothing personally of these percentages.

Question 29.—I cannot say how much bhang goes to the ser of bhoja, which is a liquid.

Question 35.—I would interfere with the habits of the poor in this respect because they give up their interest in life, become idle and do not work. Thus they suffer more from habitual excessive consumption than the better classes do. They use the drugs sometimes in moderation with advantage; but generally this moderate use becomes excessive to their great injury. So I would try to stop consumption by them altogether. These drugs also injure most those who have poor food. Rich food is necessary with these drugs.

Probably they would turn to opium or dhatura, but not alcohol, owing to religious objections. To take to dhatura would be far worse.

Question 45.—It is only the excessive use of the drugs that produces insanity. I know four cases of madness produced by ganja. I mean that the insanity in each case was attributed by the relations to ganja; and I accepted their statements. One was my teacher; and I never saw him smoke. But two of the four men I have seen smoke ganja. There is only one case which I know well enough to say positively that the ganja was the cause of the insanity.

That case was in 1875 or 1876, when the man became insane. He was not a connection of mine. He was the son of a drummer, who went about with dancing girls. My father knew him. He was a Lengayet and would not use drink. He was a gambler, and was sent to jail in 1878-79 for some offence. A "decoy-powder" (or love-powder) given by a wife might produce insanity: that is the popular idea. Some attributed one case, that I head of, to this. I can give no other causes of insanity in general. My belief is that the ganja caused the insanity in this case. It is a popular belief among the Hindus that ganja causes insanity. I know excessive smokers who are not insane: the popular belief is that excessive use may cause insanity, not that it always does.

---

33. *Evidence of* Rao Bahadur Ramchandra Rajaram Mulé, *Deshastha Brahmin, Administrator of Jath, in Southern Mahratta Country.*

1. During my service as administrator of Miraj (Junior) and Jath, where hemp is cultivated, I had opportunities of getting information from the cultivators of hemp and dealers in hemp drugs. I had also opportunities of observing the character of those addicted to the use of hemp drugs.

2. The definitions given by Dr. Prain might be accepted for this State and Southern Mahratta country generally. The words subji, siddhi and patti are not in use here. The word bhang is in use here, but it is synonymous with ganja. There is no bhang here as is found in Northern India. Round ganja is not made in this part of the country. Chur is called here gadada.

3, 4, 5 and 6. The wild hemp plant is not found in this part of the country, and therefore these questions need no answer.

7. The hemp plant is cultivated in this part for the production of ganja only. No cultivation is made for (*b*), (*c*) and (*d*). The hemp plant is cultivated in the Jath State at Kumbhari, Bagewadi, Báj, Belunki, Yeldari, Jath, Jangalgi, Boblad, Aukla, and at Kharsundi* (Aundh State), Mhaswad* and Lengre* of the Satara district, and Morale* of Miraj Junior.

The total extent of hemp cultivation in this State is about 30 acres. I have no means of ascertaining the acreage under hemp cultivation in the villages marked * in the above list. But I can say from a reference to statements of crops given in the Annual Report of the Director of Land Records and Agriculture, 1889-90, that in the surrounding British districts of Satara, Bijapur and Belgaum 368, 1, and 2 acres are, respectively, under the hemp cultivation.

8. From the statistics to hand I find that there has been an increase in the area under hemp cultivation; because the soil and the climate of the western portion of Jath are favourable for its cultivation, and the produce pays very well. The increase has been since the past seven or eight years. There has been greater demand for ganja, and hence the increase.

9. The land called Marul (mixture of red earth with white) is generally selected for ganja cultivation. The site thus selected is well ploughed and manured with cowdung and then it is harrowed several times. The seed is not preserved here, but is brought from the Khanapur taluka of the Satara district. I am informed that the ganja seed from Ahmednagar is considered the best; and the Khanapur cultivators bring it from that district. The sowing operation commences as soon as the rain periods called Punarwasu and Pushia set in—that is, in the month of July. It is popularly believed that the July (Punarwasu and Pushia) rains are favourable for the raising of ganja crop. Ganja cultivators are, therefore, on the alert not to lose this favourable opportunity. The seed is sown by means of *tiffan* or drill plough. On the plants attaining the height of nearly six or nine inches, weeding operation begins. In the event of the plants growing too closely, they are thinned and carefully weeded out. The method of transplantation of ganja is not known in this State. If the rainfall is scarce and inopportune, the plants are watered by well irrigation twice a week. To favour the upward growth, the lower branches are lopped off. Trimming of the plants commences by November. The ganja plot is again harrowed and all weeds are removed. At this stage the plants begin to flower, when the services of an expert are called into requisition. At this juncture all the staminate or male plants must be cut down and removed. This work can only be done by an expert, who is paid at least Rs. 10 a month during the time his services are employed. He is called Parakhdar, because he examines all the plants and carefully takes away all the male plants till they disappear altogether.

10. There is not a separate class of persons who cultivate hemp. But those among the agriculturists who have means of cultivating the hemp plant do so.

11. Never in this part of the country.

12. No.

13. In this province the cultivation of the hemp plant for ganja appears to have been restricted to the districts in the plain country, that is, districts of the Deccan, the Southern Mahratta country, and Khandesh. The climate and situation of these parts appear favourable to the growth of hemp plant for ganja. As in the coast districts the hemp plant is not at all cultivated, the cultivation does not seem common to all districts. Hot climate, friable loamy soil, rain periods, *viz.*, Pushia and Punarwasu, etc., are the special conditions for the cultivation of hemp plant for ganja. In this portion of this State and generally where there is deep black soil as in the Dón valley its cultivation for ganja seems impossible.

14. Ganja is prepared from the hemp plant in this State at the following places :—

(1) Kumbhari, (2) Bagewadi, (3) Báj, (4) Belunki, (5) Jath, (6) Yeldari, (7) Jangalgi, (8) Boblad, and (9) Anklé. And, so far as I know, this article is prepared also in the villages of the neighbouring States and British districts. These places are as follows:—

Lengre, Mahaswad and Kharsundi, etc.

The extent of the produce of ganja in this State is 150 maunds (80 tolas=1 seer and 40 seers=1 maund).

(*b*) and (*c*) are not prepared in this part of the country.

15. The wild hemp plant is not met with in this part of the country, and therefore the following particulars of the method of the preparation relate to the cultivated plant only. When crop is ready for reaping, a piece of ground, about 9 feet long, is cleaned and well cowdunged. On this place the unfertilized flowering tops of the hemp plant are heaped. This heap is trodden by men for 16 times every day. At the end of every fourth time, the heap is turned upside down. This operation goes on for four days successively. This operation brings narcotic properties in the stuff, which is then termed ganja.

(A) Smoking. Before ganja is put into a pipe it is rubbed in the palm of the hand with a few drops of water; and is then well pressed between two palms of the hands so as to remove all water and make it sticky.

(B) Eating. For this purpose a preparation is made of ganja which is called fakki. The manufacture of fakki is as follows:—

Ganja is first fried in ghee and then it is mixed with sugar in equal proportion. In this mixture the spices, *viz.*, cardamoms, nutmegs, cloves and poppy seeds are added. Some people eat ganja mixed with a little jagri.

Another preparation made for eating ganja is majum. Ganja is first fried in ghee and well powdered. A syrup of sugar is prepared in which the fried and powdered ganja is mixed. This mixture is then boiled and stirred until it becomes an adhesive syrup. This syrup is then poured into a flat vessel which is kept open in the air. When the syrup concretes into a thick cake, it is divided into small parts and made ready for use.

With a view to play practical jokes ganja is used in the preparation of a dish called bhaji—a

preparation of gram flower and slices of brinjal, etc. (here instead of brinjal, ganja is put), soaked in oil or butter and fried.

(C) Drinking. For drinking purposes a preparation called ghota is made. The method of this preparation is as given below :—

Ganja (female flowering tops made into flat cakes) is mixed with water, and the mixture is grounded either in a mortar with a pestle or pounded on a hard stone with another stone. The quantity thus pounded is mixed with cardamoms, cloves, nutmegs, sugar and poppy seeds. The mixture is again grounded for several hours, then the mixture is poured down by a person standing on an elevated place into another pot. This process is continued till the mixture comes to the satisfaction of the consumer. This process of pouring down the mixture is, it is believed, calculated to increase the narcotic property of the drug in proportion to the height of the place from which the mixture is poured down again and again. The ghota is sometimes prepared in sugarcane juice. This drink is taken *ad libitum*.

16. As there is no bhang in this part of the country information is not available.

17. Ganja is prepared for smoking purposes by those who use it. There are not professional classes for preparing it. Majum is prepared by sweetmeat sellers. Ghota for drinking purposes is prepared by persons in their houses. In large towns and cities it is prepared by sweetmeat makers for sale.

18. Ganja deteriorates by keeping. It loses its effects in time. With ordinary care it can be kept in good condition for a year or so. By long keeping it gets a musty smell, and its narcotic properties disappear by evaporation. Measures to prevent deterioration are not known in this part of the country.

19. Ganja is not used for smoking only; but it is eaten after mixing it with other things. It is used in majum, fakki, ghota and bhaji. The particulars of the preparations are given in my reply to question No. 15. The use of these preparations is prevalent in the Deccan and Southern Mahratta country. It is also used for medicinal purposes.

20. Gossains, bairagis, fakirs, kaikadis, ramosis, bhamtias or uchalias (professional pickpockets), weavers, dyers, and many of the lower strata of the population use ganja. Even in higher classes there are many Brahmins and many others who are addicted to the smoking of ganja. In my opinion not less than 8 per cent. of the population (in this part of the country) is addicted to ganja-smoking. In towns the proportion of ganja-smokers is greater than in villages. Where there are criminal classes, the consumption of ganja is on a larger scale.

21. Round ganja is preferred for smoking; but here it is not easily available; the flat ganja is, therefore, generally used everywhere in this part of the country; chur is not used for smoking here.

22. Charas is scarcely used here. It is imported for sale from Sind, the Central Provinces and the Punjab.

23 and 24. The bhang is not met with in this part of the country, and particulars therefore cannot be given.

25. The consumption of ganja is on the increase, which is observable among the lower classes. The reason is the want of education among them. Their material condition is improved, and they therefore can afford to spend money in their vicious habits of using ganja.

26. I have stated above that 8 per cent. of the population are consumers of ganja. This proportion may be classified as follows :—

(*a*)	Habitual moderate consumers .	5
(*b*)	Do. excessive do. .	1
(*c*)	Occasional moderate consumers .	1½
(*d*)	Do excessive do. .	½
	Total .	8

27. (*a*) Habitual moderate consumers are from the working classes who use ganja as a stimulant.

(*b*) Habitual excessive consumers are taken from lower orders who lead idle life and are almost vagabonds.

(*c*) Occasional moderate consumers are from better classes who use ganja on holidays and in religious ceremonies.

(*d*) Occasional excessive consumers are from occasional moderate consumers mentioned in (*c*).

28. The average allowance of ganja to (*a*) habitual moderate consumers is about two tolas at a cost of half an anna per diem, while for (*b*) habitual excessive consumers about 7 or 8 tolas of ganja at a cost of two annas per diem is required.

29. Tobacco is (*a*) ordinarily mixed with ganja by the different classes of smokers. In (*b*) exceptional cases the mixture of petals of rose flowers, cloves, cardamom seeds, nutmegs and cinnamon are mixed together, and the mixture is well powdered. The powder thus prepared is mixed with ganja before it is used for smoking by well-to-do persons.

Dhatura is sometimes so used by those who are hard smokers. The object of mixing tobacco is to give flavour to the ganja, which is naturally insipid. In tobacco there is nicotine principle while it is absent in ganja. Tobacco is therefore generally mixed with this stuff. In order to give aromatic smell to the smoke the massala (the articles mentioned above) in exceptional cases is mixed. Bhang massala is not sold in this part of the country. I am informed that in Northern India, where bhang is extensively used, bhang massala is generally sold. Its ingredients are said to be poppy seed, kasni, and cucumber seed. Excessive smokers add sugar to this bhang massala. The object of mixing dhatura is to increase the narcotic property of ganja. Black dhatura seed (*Dhatura fastussa*) is preferred.

It may be mentioned here that a pipe made of sugarcane is used for smoking ganja. It is a belief that the pipe of the above kind increases narcotic property of ganja.

30. Of the total number of consumers three-fourths smoke ganja in company which sing songs* addressed to ganja; the rest use it in solitude. The consumption of ganja is not confined to the male sex alone. Women of low character are met with who smoke ganja generally in solitude. The consumption of ganja is not confined to any time of life. It is not usual for children of tender years (under 14 years) to smoke ganja.

* Please see appendix.

31. The habit of consuming ganja is easily formed. It is, no doubt, very difficult to break off the habit: however, a moderate consumer might do without the use of ganja for a week or so; but habit being a second nature, the consumer

cannot altogether give it up. I cannot say there is any tendency in the ganja itself for the moderate habit to develop into the excessive. Much depends upon society.

32. So far as the Hindu community is concerned, it is difficult to make a distinction between social and religious customs, as every custom is attributed to some religious principle. The consumption of ganja in one form or another is customary on holidays such as the Shivaratra or Muharram. In this part of the country pilgrimages are held at different places in honour of Shidanath, the supposed incarnation of Shiva (one of the Hindu Trinity). Ghota made of ganja is offered to the deity. On this occasion it is considered incumbent on the devotee to take a cup of ghota himself and give some to his friends, relations and followers, as the use of the drug in connection with the custom is regarded essential. The use is generally temperate. It is not likely to lead to the formation of the habit; nor is it injurious, as the use is only made once a year in a moderate form.

33. The consumption of ganja is regarded vicious and disreputable. There exists a strong public opinion against the use of ganja, as the person addicted to this kind of intoxication is not considered respectable in society. I do think that the use of any form of the narcotic is held in disrepute, and I attribute the sentiment to the following reasons:—

1st.—Generally narcotics are used by lower orders of the people.

2nd.—They are used by criminal classes.

3rd.—The use of the narcotic demoralises the character of a man and intoxication makes him act like a beast.

4th.—As the results of the indulgence of the narcotic are proved pernicious, the habit is condemned by societies of all countries.

The custom of worshipping the hemp plant is not known in this part of the country.

34. It would no doubt be a serious privation to gosains, bairagis, and fakirs to forego the consumption of ganja which they use every day. These classes spend their lives in pilgrimages in different parts of the country and use ganja as their main support. I do not think that other such classes as artisans, etc., would feel serious privation supposing they use the drug moderately.

35. I do not think it feasible to prohibit altogether the use of all these drugs. The drug (ganja) will be consumed illicitly. The cultivation of the hemp without permission will have to be made penal by the law. Such prohibition is likely to occasion serious discontent among the consumers, such as gosains, bairagis, and others of the similar class. So far as this province (Bombay presidency) is concerned, such discontent will not amount to a political danger. I think such prohibition will be followed by recourse to alcoholic stimulants and other drugs, such as drinks of sindi or palm juice.

36. I do not think that alcohol is now being used in place of ganja in this presidency. On the contrary, I think those who are unable to buy liquors on account of its enhanced price resort to ganja. As regards this question, I cannot do better than give reference to page 236 of Hindu Materia Medica by U. C. Dutt, which will show that alcohol is being substituted for ganja in Bengal.

40. The Native Doctors, both Hindu and Muhammadan, use ganja in medicine. It is used to cure not only the diseases of cattle, but of horses also.

41. (*a*) The moderate use of ganja by smoking is beneficial in its effects as digestive and its use by drinking is said to be a food accessory.

(*b*) Yes.

(*c*) It is a popular belief that smoking of ganja is preventive of disease in malarious and unhealthy tracts.

Labouring classes and pilgrims who are required to travel different parts of the country use ganja for the above purposes. I refer to moderate habitual use.

43. Yes.

44. The immediate effect of the moderate use of ganja on the habitual consumer is to rouse his spirits. The use of ganja is said to be refreshing to the habitual consumer. It does produce intoxication in moderate consumers; drink prepared of ganja, that is, ghota, allays hunger. Smoking creates appetite. The effect of ganja-smoking lasts for about two hours. I am informed that the lassitude is the after-effect. The want of subsequent gratification produces longing or uneasiness.

51. A large proportion of bad characters, *viz.*, bhamtyas (pick-pockets) and kaikadis and other criminal classes are found to have been habitual moderate consumers of ganja. The use of ganja nerves the consumer to commit a crime. Popularly ganja intoxication is called "Mardani Kaif" or male intoxication; that is to say, the consumer while under the influence of ganja acts like a hero.

52. Those who make the use of ganja to an excess habitually are sometimes found to have run amuck; murders are committed by such persons, but cases of these kinds are of rare occurrence.

54. Yes.

55. Yes; criminals induce their victims to partake majum (made of ganja) and stupefy themselves.

58. The present system of excise administration in the Bombay presidency works generally well, but I consider it susceptible of improvement in some minor points.

59. The improvement seems necessary in the minimum quantity of intoxicating drugs allowed to be sold to one person on any one day, and the rate at which the drug should be sold in retail.

60. In the Bombay presidency the cultivation of the ganja-hearing plant is not at all controlled, as under the present Abkari Act cultivation of ganja without permission is not an offence under Bombay Act No. V. of 1878 (*vide* Queen *vs.* Narain wd. Soma, 1883). But the process of the preparation of ganja is sufficiently controlled, as no one can prepare it without a license. I do not think any modification in the rules necessary.

61. Charas is not produced here.

62. Properly speaking, bhang as defined by Dr. Prain is not produced here, and therefore no answer to this question is required from me.

63. I see no objection to the system of wholesale vend of ganja. As regards retail sale, I think 40 tolas, which is the present minimum quantity allowed by the rules, is too large. If intoxication is to be checked, the quantity should

be reduced to 20 tolas; so also a rate should be fixed at which the licensee should sell the drug.

64. No.

65. According to the present system the monopoly of selling intoxicating drugs (including ganja, bhang and charas) is put to public auction, and the person whose bid is accepted is given a license. The licensee sells these articles at his own rates. Under such circumstances it is impossible to state what is the taxation of each of the drugs (ganja, bhang and charas) and therefore comparison with reference to each other is impossible. A comparison of the tax on ganja with that on alcoholic intoxicants shows that the former tax is lighter than the latter. In order to check the vice of the use of ganja some enhancement in the tax seems desirable.

66. I think there should be different rates of taxation for different kinds of ganja according as such kind possesses more or less narcotic property.

67 and 68. No.

69. The wishes of the people are not consulted before a shop is opened in any locality. I think the opinion of the local bodies ought to be considered before a shop is opened for the retail sale of intoxicating drugs.

70. I am not aware of any facts. The Bombay Abkari Act has been introduced by the Native States, which are bound by agreement to enforce it. Everything is done according to the rules under the Act and strict supervision is exercised by the Abkari Department, and therefore the payment of duty is not, so far I know, evaded. There is no general use of untaxed drugs.

Appendix to the evidence of Rao Bahadur Ramchandra Rajaram Mulé.

Translation.

Great is the holy preceptor, Sitaram,
The warrior Bajrang before him stands,
The enemy's skull is off.
Having drunk the nectar of devotion to Ram,
He stands in an attitude of meditation
And contemplates devoutly the preceptor's feet.
Take (the name) of the hill (deity).

Great (deity of) Badri,
Send, oh! bearded god (Mahadev),
Bread like unto the cloud,
And dal (as plentiful) as the ocean,
For your worshippers to eat.
Thou art near unto him who is present
And far from him who is negligent.
Take (the name) of Bramha Mahadev.

The body is dirty;
The mind is pure;
He stands on one foot contemplating.
Some one says,
"I am a sadhu (saint)."
A mine of extreme fraud he is;
Deceit takes possession of a hypocrite's heart,
But a sadhu has Ram in his mind.
We do not know of any deceit:
The object is to fill the stomach.
Take (the name) of the hill (deity).

A sadhu devotes himself to another sadhu,
But a deceitful man devotes himself to (the acquisition of treasure):
Keep the company of the great,
Greatness will increase;
Associate with a sadhu,
And you will be turned into a pearl.
Associate with the bad,
And lose the (fruits of) meditation.
Take (the name) of the hill (deity).

Come, oh! thou Kali (ganja)
Of Calcutta:
Thy word will never prove untrue;
Take the front one to the rear,
Pluck the scoundrel's beard,
He who has spoiled the ways of religion.
Thrash the scoundrel
In front of the chavdi.
Burn, oh! mother (ganja?), burn:
Bramha Mahadev.

(N.B.—The sense is not clear in some places and the language used is vulgar.)

Oral evidence.

Question 8.—The increase in demand for ganja has been partly due to the improved condition of the people, but partly also to increased export to Bijapur district, Miraj State and Belgaum district.

The cultivation of hemp is very profitable and prohibition of cultivation would affect the people considerably, the raiyats I mean. The Jath State is under management; and the Bombay Excise Rules are in force. I do not think hemp drugs are mentioned in any agreement with this State; but the State is bound by agreement to act according to the general Abkari Law of Bombay.

Question 15.—Bhaji is different from bhoja. It is only occasionally used in the way I have explained.

Question 20.—I think that nearly one in ten (*i.e.*, eight per cent.) of adult males use ganja. I do not think this too high an estimate.

Question 29.—I have not met any one who said he used dhatura. But I have been told that some gosains, &c., use this drug: the seeds, and only rarely.

Question 40.—I do not know what the diseases are for which the hemp drugs are used by native medical practitioners.

Question 51.—I have inquired into this matter personally and have found that the classes of bad characters I have named are smokers. Contractors and village officers in the Jath State are my informants.

Question 52.—I know no case personally of running amuck. I have heard of such cases and read of them in newspapers. They are rare.

34. *Evidence of* RAO BAHADUR V. H. SHIKHRE, *Brahmin, Huzur Deputy Collector, Alibagh, Kolaba District.*

1. I have made personal enquiries with a few persons at Alibagh, who smoke ganja.

2. Charas is not smoked in this district, and consequently nothing is known about it by the people here. Nothing is known of the definitions given here, as the hemp plant is not cultivated and manufactured in this district; what is imported for sale and smoked is called ganja, which appears to be of a mixed variety, *viz.*, flat and round ganja; what is used for drinking is called bhang, consisting of smaller leaves or "patti" selected or remaining from the longer leaves of ganja.

3. Not known. It does not grow spontaneously in the Kolaba district.

4, 5 and 6. Not known here.

7. None in the Kolaba district.

8. Requires no answer.

9. Not known, as the plant is not cultivated here.

10, 11 and 12. Not known.

13. Cultivation is not restricted in the presidency of Bombay. But restrictions are placed on its import, export, and sale—*vide* Bombay Act V of 1878.

14. Not in this district.

15 and 16. Not known. But ganja, when brought home from the shop of the farmer, is prepared for smoking, thus—(A). It is kept in water for some time and then squeezed by hands till all impure water passes away. It is then mixed with dry tobacco either in equal or half quantity and smoked. (B) Eating of ganja is not known here save for medicinal purposes; what is used for drinking is called "bhang," a liquid preparation made by the people generally in their own houses. (C) The smaller leaves of ganja selected for the purpose are first carefully washed by water so as to remove all impure matter therefrom, and then mixed with spices, such as pepper, poppy seed, almonds, saffron, dried rose flowers (buds), etc. The whole mixture is pounded on a stone, to which then is added milk and sugar; the liquid thus prepared is then passed through a piece of cloth by way of filtering it and drunk. Those who cannot afford to use the spices drink it without them.

17. Not known.

18. Ganja deteriorates by keeping after one year, and becomes quite useless for smoking purposes after three years. The causes of deterioration are not known here.

19. The following answers generally relate to ganja used for smoking purposes.

Ganja is also known to be used occasionally for medical purposes to prevent diarrhœa, red dysentery, colic complaints and those from cold. It is then mixed with other native medicines. Its ashes are used for stopping ulcerations.

20. Ganja-smoking is not confined to any particular locality or particular class of people. But generally well-to-do people and those of the better classes do not smoke it. It is generally used for smoking by a majority of the people belonging to what are called wandering tribes, such as gosains, bairagis, fakirs and also by a few of the working classes. The proportion of the consumers appears to be 1 to every 500 of the population of the district, which is, according to the census of 1891, 594,872.

21. The ganja imported here for sale is a mixture of flat and round leaves of the hemp plant.

22. Not known.

23. No.

24 The people generally do not eat bhang. The same answer applies here as is given against question No. 20, except that there are very few persons who regularly drink bhang, and that few only occasionally do so on fast days and in the hot weather. Their number, *viz.*, of both the classes may be taken to be about from 200 to 300 men out of the whole population of the district.

25. It appears that the use of ganja is slightly on the increase, as appears from the fact that in 1891-92 about 74 maunds were consumed for the whole district, while in 1892-93, 75 (Bengal maunds); but it should, at the same time, be observed that the increase of one maund does not necessarily show any increase in the number of the consumers, as it is possible that during the latter year more ganja might have been purchased for uses other than smoking.

26. About three-fourths of the number (question 20) may be classed under (*a*) and the remaining one-fourth under (*b*) and (*c*); there are none under (*d*).

27. Fakirs, gosains and bairagis are generally habitual excessive consumers, while habitual moderate and occasional moderate consumers belong to all classes of the people, especially the working and low classes. Occasional moderate consumers are those who are advised to use ganja as medicine. As regards contracting the habit of smoking ganja, much depends upon the nature of the society or company one moves into.

28. (*a*) From ½ to 1½ tolas.
(*b*) From 3 to 5 tolas.

29. Tobacco is invariably mixed with ganja before it is smoked; dhatura and opium are very seldom used. They are mixed for the purpose of causing more intoxication. Bhang massala consists of pepper, almonds, poppy seed, cardamoms saffron, nutmeg (jaifal) and dried rose buds.

30. Ganja smoking and bhang drinking is practised to a greater extent in company than in solitude. It is rarely that a consumer smokes or drinks alone. Generally his neighbouring brother-smokers gather together at his house for the purpose.

31. The habit is not easily formed, but when once formed, it is difficult to break off. As regards the last part of the question, it may be remarked that it depends upon one's own circumstances, both pecuniary and social, to develop his moderate habit into excessive one.

32. Not known here. But sometimes the liquid preparation of bhang is offered as a sacrifice to the god Mahadev or Shiva, especially on the fast days observed in his honour.

33. The people generally regard ganja smoking as a vice, as it brings on intoxication more or less. Ganja smoking and bhang drinking are said to excite the religious sense of a man. The bhang preparation, when occasionally taken in moderate

quantities as a cooling drink, is not viewed as a vice.

There appears to be no custom here of worshipping the hemp plant.

34. Yes. Because the habit once contracted of using ganja and bhang, if removed, would be injurious to their health in many ways.

35. (*a*) and (*b*) No.

(*d*) Yes.

(*e*) and (*f*) No.

36. No.

The following answers relate to ganja smoking only.

37. Charas smoking is not known in this district.

38 and 39. Not known here.

40. Yes—*Vide* answer to question 19. Ganja is administered to cattle suffering from purging, indigestion, etc.

41. (*a*), (*b*) and (*c*) Yes.

Generally all the classes of the people use ganja. But the majority of the consumers will be found among the lower uneducated and working classes. Both the moderate habitual use and moderate occasional use are referred to here.

42. It is also harmless, as it does not excite a man to be violent or commit any mischief or crime.

43. Yes.

44. The moderate use is said to produce very little intoxication and to create appetite. Its effect lasts for about one hour. There are no after-effects except that the smoker generally needs substantial food. The want of subsequent gratification does produce longing and uneasiness, but it causes no injurious effects.

45. (*a*) to (*e*) No.

(*f*) Such cases are not known to the undersigned.

46. No information could be obtained with regard to this question.

47. No.

48, 49 and 50. Not known.

51. Not known. None.

52 and 53. Not known.

54. Not known. No crime appears to have been committed here within the past four years attributable to ganja-smoking.

55. Not known.

56. By admixture of tobacco with ganja the smoking becomes more tasteful. (*a*), (*b*) Not known. No information is forthcoming about the admixture of dhatura. As a rule ganja is never smoked without the admixture of tobacco.

57. As said before, ganja is eaten with other native medicines—*vide* answer to question No. 19.

58. The present system works well, except that each shop should be farmed out separately.

59. *Vide* answer to question No. 63.

60 and 61. Ganja is not produced in this district.

62. No.

63. The only change required is that instead of monopolizing the retail sale, as is done at present with regard to this district, each shop should be farmed out separately, so that the people might get the drug used for smoking at cheaper rates and of a better quality. At present there being one farmer for the whole district, it is in his hands generally to regulate the prices and the quality of the drug, while in the case of the different farmers for the several shops (there are fourteen in this district), there will be a competition among them as regards good quality and low rates.

64. None.

65. The taxation with regard to the drug used here appears reasonable.

66. No, as regards this district, where no distinction is observed between the different kinds of ganja.

67. No.

68. There are no such houses or shops in this district.

69. There appears to be no rule or order about this. But much depends upon the wishes of the farmer of the drug. It is, however, necessary that the people concerned should be consulted as to the advisability of a shop being opened in their locality.

70. None. This district does not adjoin any Native State except that of Jangira, where the hemp plant is not cultivated and does not grow spontaneously.

---

35. *Evidence of* Mr. J. F. Fernandez, *Retired Deputy Collector and City Magistrate, Ahmedabad.*

1. The opportunities attendant on one's employment in the Revenue Department of the Administration. I held an executive appointment in the Ahmedabad Collectorate for seventeen years, and my answers relate almost exclusively to that district.

2. I accept the definitions given here. The names the three products are known by in the Ahmedabad district are bhang or subji, ganja and charas. But I may add that charas is not used or consumed there. I hear of round ganja now for the first time. I have never seen it.

3. I have no particular knowledge on this head. It is certainly not grown in the Ahmedabad district, nor is it cultivated there. Hence I am unable to answer the other questions in this chapter.

14. Charas is not used or consumed in the Ahmedabad district. Ganja and bhang, as the first products of the hemp plant, come prepared into the district. They are imported by the farmer of those drugs under permits granted by the local revenue authorities chiefly from Ahmednagar district in the Deccan by rail. Before the construction of railway to Ahmednagar, ganja used to be brought chiefly from Malwa *viâ* Dohud and Godra, and bhang from the territories of the Guickwar and the Nawab of Cambay.

15. I can give no information regarding the methods of preparation from the cultivated or

wild plant, but appendix A (attached hereto) contains a memorandum of preparations made from ganja and bhang for drinking and eating purposes. It describes also the process ganja goes through preparatory to its being smoked. Bhang drinking is much patronized during the hot months of the year. It is said to have a peculiar effect on different constitutions; in some cases it excites mirth and risibility, in some grief and crying, and in some quiet and repose. It has also a further peculiar effect on those who have taken it in that they are unable to face a burning light with eyes open.

16. As far as I am aware, bhang as a drink is invariably prepared by people in their houses. I am unable to give information on the other two points.

18. As a rule, the drugs would deteriorate in due course unless kept in hermetically closed bottles or tin cases. Loss of effect must follow deterioration.

19. Ganja is chiefly used for smoking in the Ahmedabad district, and this to a very limited extent indeed, its use being confined to wandering gosains, natives of Upper India sojourning in the district in consequence of employment, and some of the lower classes of the local population. Charas, as stated before, is not used at all in that district.

20. The foregoing reply answers the query as regards the classes of people. It is utterly impossible to give proportion even at a guess. It is principally in the city of Ahmedabad and some of the larger towns in the district that ganja is smoked.

21. Flat ganja is what is used in the Ahmedabad district.

22. No charas is used in the Ahmedabad district.

23. Not in the Ahmedabad district, so far as I am aware.

24. It is the Hindus who generally use bhang as a drink on certain occasions, during hot weather especially. They do not form a large number, and what they do use is used in moderation. As regards eating, the use of the extract from bhang drawn in ghi and mixed up with poppy seed, etc. (*vide* paragraph VI, appendix A), is confined to an infinitesimally small section of the population, and that among the rich and well-to-do people.

25. I do not think it is on the increase. Indeed, the habits of the people preclude the possibility of ganja or bhang (charas is not used) ever taking hold of them beyond a moderate indulgence.

26. They are all moderate consumers, and occasional consumers in the Ahmedabad district.

28. So far as my information goes, there are no habitual excessive consumers in Ahmedabad. The moderate consumers—I mean those who have become addicted to the daily use of bhang and ganja—rarely go beyond a dose, or a smoke or two, and this may cost three or four pies, certainly not more.

29. My answer to query 15 supplies the information desired. Dhatura is not used in the Ahmedabad district, nor is bhang massala an article of sale there.

30. As far as my information goes, bhang is used generally in company. It is mainly confined to the male sex, and used without reference to period of life. Children may sometimes come in for a small share—in cases where they are spoilt by their parents—if they happen to be with them when they (the latter) indulge in it.

31. The use of ganja and bhang is so very limited that it is impossible for me to hazard a satisfactory reply. But it may be observed that the habit of ganja smoking is formed by association with the consumers of the drug, and, unless, it has taken root, there would be no difficulty in breaking it off.

32. The beverage made from bhang (*vide* V of Appendix A) is used in the worship of Mahadeo in the temple during the hot season, and drunk by the worshippers when the service is over. The beverage forms an essential part of the ceremony, and has not been known to have been used except in moderation. So far as my experience goes, I have not known it to have led to the formation of a habit of indulging in it, and I do not think it has proved to be injurious.

33. So far as I am aware, there is no public opinion against bhang drinking in Ahmedabad. But against ganja smoking there certainly is a public feeling just as there is against the drinking of spirituous liquors. Hemp plant is not worshipped in Ahmedabad.

34. The privation in this case would be almost the same as the foregoing of wines and liquors would be to a European habituated to the consumption of wines and liquors. As already stated, the users in Ahmedabad are very few.

35. As far as my experience goes, no good will come out of a prohibition to use either bhang or ganja in the Ahmedabad district. As the use of the drugs there is not general, its prohibition may not lead to any political danger, but it will be sure to cause considerable discontent. I know of a few cases in which bhang has given way to alcoholic liquors. Indeed, as matters stand in Ahmedabad, alcoholic drinks, which thirty years ago were looked upon as an abomination by the people there, Hindus specially, have now become articles of regular consumption among certain sections of the community, and they have caused far greater ruin among them during the last 25 years than bhang and ganja ever did singly or collectively during ten times 25 years.

30. I think there is. Education has given the rising generation a distaste and contempt for old things, among which may be included the use of these drugs, and created a desire for alcoholic liquors, which are indulged in pretty freely.

58. Considering that there is no hemp cultivation in the Ahmedabad district, and that ganja and bhang come there prepared; further, that I left the service seven years ago, and that I am ignorant of the changes that have been introduced as regards administration and control since my retirement, I am not in a position to discuss the questions in this chapter. But bearing in mind the small and partial consumption of these drugs in this district, it seems to me that the farming system as regards their importation and retail sale (prevailing in my time) is the best arrangement possible.

68. Bhang, ganja, and majum are sold in the Ahmedabad district by tambolis or sellers of betel leaves and betel nuts (pan supari). The demand for them is not such as to admit of a shop being devoted to their exclusive sale. There was, in that district during my time no house or shop where their preparations were consumed on the premises, but I hear that one has lately been

opened in the city of Ahmedabad, where bhang beverage is prepared for the public and used accordingly. I think this ought to be stopped.

69. There was no occasion for such a proceeding in my time.

Appendix A.

Ganja Preparations.

Eating.

I.—*Ganja ghee.*—This is made by boiling a certain quantity of ganja and ghee in water for two or three days. When the decoction has attained the required point, the pot is taken off the fire and allowed to cool down. The ghee is removed as soon as it hardens and put away in a jar. It is used at pleasure, a dose, as a rule, not exceeding one-eighth of a tola.

II.—*Majum.*—This is made of ganja ghee (*vide* foregoing) and sugar taken in certain proportions. They are first boiled to a thick consistency. The compound is then mixed with nutmeg, kasturi (*Vachellia farnesiana*), kesar (*Crocus sativus*), and cardamoms, all powdered, according to the taste of the consumers. Majum is sold in the bazar.

III.—*Akuti.*—This is a preparation used only by the rich and well-to-do people, Hindus generally, and is invariably made at home. Taken 3 ℔ of ganja properly cleaned. It is put into a pot of water and boiled; at a certain stage the water is poured out gently, and the ganja is put out to dry. When dry, it is pounded very fine. To the powder thus made are added two ounces avoirdupois of cardamoms, one ounce of nutmeg, half an ounce of cloves, two ounces of mace, two ounces of gulkand (rose flower preserve), two ounces of piplimul (*Chavica roxburghii*), two ounces of cinnamon, eleven grains of kasturi (*Vachellia farnesiana*), one tola of kesar (*Crocus sativus*), half a tola of opium, and one tola of tamal patra (*Cinnamomum tamala*), all powdered. The whole is then blended together with half a tola of silver leaves, and the compound is thrown into a rupee's worth of pure honey and well mixed up. The preparation is now ready for use. It is taken only by pinchful at a time.

Smoking.

IV.—A pice worth of ganja weighing about a fourth of a tola suffices for a chillum. It is well washed in water until all the seed is detached; the residuum is then mixed with an equal quantity of tobacco, and put into a chillum and then smoked. Ordinarily a chillum answers for two or three persons, but there are cases where a man smokes it right through himself at one time, and more than one in a day.

Bhang.

Drinking.

V.—*Bhang as a drink.*—It is first roasted; then passed through water several times, and after that pounded with a certain quantity of black pepper, poppy seed, fennel seed, and rose flower petals. The powder so formed is mixed with a quantity of wter, or water and milk, or milk alone, at pleasure. The mixture is then strained through a piece of fine cloth, and the liquid becomes fit for use. Some people sweeten it with sugar. The higher classes add spices to the mixture and substitute almonds for poppy-seed.

Eating.

VI.—An extract is drawn from bhang in ghee, the process of manufacture being similar to that observed in the preparation of ganja ghee. It is used in the same way as ganja ghee. After removal of the concentrated ghee from the pot, the water is emptied out gently and the residuum is put out to dry. When dry, it is mixed with poppy-seed and sugar in certain proportions, and this composition forms an article of luxury, being used like betel-nut.

---

36. *Evidence of* Narayan Rao Bhikhaji Jogalekar, *Brahmin, Pensioned Deputy Collector; now Karbhari of the Aundh State.*

1. I was—

1stly, Mamlatdar of talukas Karad, Patan and Wai, in the Satara Collectorate, for six years;

2ndly, Assistant Commissioner of the Southern Division, then comprising nine Collectorates, *viz.*—(1) Satara, (2) Poona, (3) Ahmednagar, (4) Sholapur, (5) Belgaum, (6) Kaladgi (now Bijapur), (7) Dharwar, (8) Ratnagiri, (9) North Canara (Karwar), for nearly six years;

3rdly, Deputy Collector of (1) Khandesh, (2) Nasik, (3) Alibag, (4) Ahmedabad and (5) Sholapur for seven years;

4thly, Assistant Collector, Salt Revenue, Bombay;

5thly, Karbhari of the Jamkhindi State for three years;

6thly, Karbhari of the Khasgi State at Indore; and after retirement

7thly, Am now Karbhari of the Aundh State.

In my above capacities I had always had occasion to examine the shops for the sale of ganja and to see the hemp plant grown in fields. I have seen hundreds of ganja smokers and bhang, or in other words ghota drinkers, and seen their state of mind and condition. In addition to my own knowledge of the matter, I have availed myself of the information prepared by the Mamlatdar of Khanapur, Mr. S. K. Bengali, in regard to the cultivation of the hemp plant, and conversed with a number of hemp plant producers and ganja sellers and smokers during this week before commencing to write my answers to the following queries put by the Hemp Commission.

2. The definition of the narcotic articles obtainable from the hemp plant as given by Dr. Prain and noted down here is not fully applicable to the hemp plant in the Deccan, but, I am informed, to that growing in the North-Western Provinces. He states that the dry leaves of the hemp plant produce bhang, but they are thrown away here as having no narcotic matter in them.

His definition of charas is correct. Charas is the resinous gummy matter which sticks to the scythe or hand or foot, by which the top flowering and knot shoot branches of the hemp plant are cut or pulled out or trodden. This gummy substance, which is collected together and converted into small pills, is called charas. It is more intoxicating than ganja.

The definition of the word ganja is correct, with this addition, that not only the dried flowering tops, but the flower bunches that shoot out at each knot also constitute ganja when trodden.

The crumbles that are collected at the time of treading down the flowering tops and knot shoots together with their tiny leaves to make flat ganja are called bhang, *i.e.*, fragments of the ganja. In short, bhang and ganja are almost one and the same in the Deccan. Round ganja is not produced here, but flat ganja only.

3 to 6. I have not come to know of the growth spontaneously of the hemp plant in any of the districts of which I had immediate charge. It is not produced in the district of Satara, of which I am the principal witness; consequently answers to queries from Nos. 3 to 6 are blank.

7. Hemp plant is cultivated in the Satara Collectorate and in the Aundh State (*a*) for production of ganja, (*b*) charas, and (*c*) bhang, but (*d*) not for its fibre or seeds. The extent of cultivation in the Satara Collectorate, together with the total produce, can be learnt from the statement prepared by the Collector of Satara.

8. Owing to the restriction placed by the Abkari Act on the manufacture, sale, and export of ganja, the cultivation of the hemp plant is not on the increase.

9. Hemp plant grows luxuriantly in irrigated lands of all kinds, whether they be black, reddish, or whitish. It grows in dry crop land also, provided the fall of rain be seasonable and plentiful. I have seen the hemp plant growing luxuriantly in an irrigated field of whitish gaonthan land belonging to a Brahmin gentleman surnamed Tadpatri in the Rahuri taluka of the Ahmednagar Collectorate, twenty years ago, while Assistant Commissioner. I have also seen it growing in black and reddish soils in the Satara Collectorate and in the Aundh State. The lands selected for the hemp cultivation are ploughed and harrowed in the months of February and March and manured in the month of May. Twenty-five cart-loads of manure are required for each acre. The seed used is from the Nagar Collectorate generally, because it is supposed to produce a smaller number of male plants or to give rise to a smaller number of the plagues hereinafter mentioned. The hemp seed is like múg seed, and can be had at one seer of 80 tolas per rupee. It is sown in the month of July generally, and the crop is reaped in the month of November or December. It commences to grow within a week. If the plants grow thicker they are thinned, and only those at a distance of one inch apart are allowed to stand. In order that the crop may not be thick, two of the three holes of the sowing machine intended for the passage of the seed are blocked up at the time of sowing. From one and a quarter to two seers of seed are required for an acre. The plants are one foot high within a month, when they are weeded and the task of rooting out the male plant or plants affected with plague follows. It is a difficult task to find out male plants; but it can generally be recognized by the small pin-like white flower growing in any one of the bunches of the plant when it is ripe and in the shoots when young. This is also called the andya plague.

The Mamlatdar of Khanapur informs me that there are other five kinds of plagues for the hemp plant called (1) shevarya, (2) haldya, (3) kapshia, (4) pundia, (5) mora, the plants affected by which are required to be carefully rooted out in due time. The shevarya plague is recognized by one of the branches growing higher and bending down with a jowari-like grain flower at the end of it. The haldya plague is recognized by a yellow shoot at one of the knots of the plant. The kapshia and pundia plagues can be recognized by a jowari-like grain on the top of the plant. It transforms afterwards into a white or yellow flower. The mora plague, recognized by the yellow flower in the top bunch, makes its appearance sometimes fifteen days prior to the reaping of the crop, and has the effect of destroying the better quality of the ganja.

No one is able to recognize the male plant and the plagues with slight observation, and therefore experts are employed. At the time of reaping the crop two men are employed, one to cut the flower top bunches with a scythe, and another man to pull out the knot shoot bunches. About 520lb of ganja are said to be produced in an acre when the crop is superior. Exclusive of the labour of the cultivator, the expense of producing one acre of hemp crop is about R60, and including the cultivator's labour R100. It is worthy of note that this crop is not eaten by cattle, but by sheep only, and as sheep are not to be found straying anywhere, hemp plants do not require hedging generally.

10. The agricultural cultivators are the very persons who cultivate hemp.

11. There is no wild hemp plant in the Satara Collectorate.

12. Wild hemp is nowhere especially cultivated in the Satara district.

13. The cultivation of the hemp plant is not restricted in the Satara Collectorate and in the Aundh State. There was a doubt on this point, but it was cleared by the High Court ruling, dated 15th November 1888, to the effect that the mere cultivation of hemp plant is not punishable under section 43 of the Abkari Act, V of 1878. The manufacture of the plant into ganja, bhang and charas alone requires a license. The sale and export are also covered with passes.

The cultivation is not common to all districts, nor are all the cultivators in the habit of cultivating hemp. Such of the cultivators only as find it profitable cultivate it. I do not think that the cultivation of the hemp plant is impossible anywhere. It can be produced in all garden lands.

14. Ganja, charas and bhang are prepared in the Satara Collectorate by the cultivators thereof. The extent of the cultivation will be known from the statement furnished through the Collector.

15. The top bunches and the knot bunches of the hemp plant are trodden separately, because they cannot be trodden together properly. The process of treading goes on till the bunches are completely flattened. This is called ganja.

The process of preparing charas is simple. The charas is the resinous gummy matter with which the scythe or the hand or foot becomes besmeared at the time of cutting or pulling out or treading the flower top or knot shoot bunches. This matter is collected and converted into small pills.

Bhang (*i.e.*, fragments of the ganja) is ground and put into milk mixed up with cardamoms, almonds, poppy seed, sugar, sweet fennel, nutmeg, black pepper and mace, and strained several times and drunk. This is called bhang ghota.

Ganja is used for smoking thus: It is first washed, until it ceases to give out green water. By this washing process it becomes gummy. One tola of ganja is sufficient to fill in two to three smoking pipes. As ganja is put in the smoking pipe in its wet state, one-half tola of tobacco is mixed with it, or placed above and below it to make it ignite.

Bhang is also converted into small cakes by boiling it with ghi and sugar. This is called majum or yakuti. This is eaten.

There are no wild hemp plants in the Deccan.

16. Ghota from bhang for drinking is prepared by the drinkers in their own houses. It cannot be prepared from the hemp plant in its raw state wherever it is growing. Ganja and charas cannot, I think, be prepared from the wild plants wherever grown. But there are no such wild plants in this district.

17. I have already stated in answer to the query No. 14 that charas and ganja are prepared by the cultivators themselves. Ghota from bhang for drinking is prepared by the Gosavis, and in some cases by other people, on Shivaratra day. Ghota from bhang is more used by all classes at Indore and in the North-Western Provinces.

18. Ganja, charas and bhang deteriorate by keeping. Ganja and bhang become less effective next year, and useless as a narcotic after three years. Charas is of use till the next rains, when vermin commence to make appearance therein and diminish its value. The causes of deterioration are that the resinous and gummy matter which exists in these articles dries up or deteriorates. There are no preventive means known here.

19. Ganja is used for smoking throughout the Collectorate. Charas is used for the same purpose, but very seldom in this part of the country, on account of its costliness.

20. The smoking of ganja is very rare among Brahmins and females of all classes, save prostitutes of the worst type. With these exceptions three or four per cent. of the other classes smoke ganja to a smaller or larger extent throughout the Collectorate. Charas is rarely in use.

21. Flat ganja, which is alone obtainable here, is smoked.

22. Charas locally prepared is rarely used. No importation of foreign charas occurs, so far as I know.

23. Bhang is not used for smoking.

24. The classes who drink bhang ghota are bairagis, gosavis, and on Shivaratra day a few more Hindus, mostly cooks, water-carriers, songsters, and other licentious characters. This kind of drinking prevails in the country lying north of the Narbada river. The proportion of the people who drink bhang ghota is very small, *i.e.*, one in a thousand, in the Satara Collectorate.

Majum or yakuti, the preparation of bhang, as per reply to query No. 15, is not permitted in the Satara Collectorate, and therefore it is seldom eaten.

25. The use of ganja is on the increase for the following reasons:—

1stly.—Now-a-days there is no control over the private conduct of any one, owing to the freedom of action existing under the British Government.

2ndly.—The English education and the preaching of the missionaries destroy in some measure the fear of the Hindu religion without contracting that of any other.

3rdly.—The Penal Code defamation section stops the mouths and actions of respectable men, who would otherwise rebuke those indulging in bad habits and excommunicate them.

4thly.—In consequence of the removal of the fear and restraint of religion and society people are becoming more debauched, and consequently the use of narcotics and alcohols is on the increase.

26. I think the proportion of the consumers of ganja is as under:—

(*a*) Habitual moderate consumers, 2 per cent.
(*b*) Habitual excessive consumers, 1 in a thousand.
(*c*) Occasional moderate consumers, 1 per cent.
(*d*) Occasional excessive consumers, none.

Charas smokers and bhang drinkers are rare.

27. Men devoid of any status in life, who do not care for other people's opinions, and who frequent houses of prostitutes, generally contract the habit of smoking ganja. Some also contract it by having for their associates smokers of the drug.

28. The average allowance and cost of ganja to each (*a*) habitual moderate consumer, who is supposed to smoke thrice a day, is one tola, costing three pies, and to (*b*) habitual excessive consumer is six tolas, costing one and a half anna. I know of a few persons who require 2½ annas worth of ganja per day, but the whole of it is not consumed by themselves. Other smokers assemble round about them, and they partake of it a little.

29. Dhatura is used along with ganja by gosains exceptionally to secure greater intoxication. There is no such preparation called bhang or ghota massala. The ingredients required for the ghota, as described in answer to query No. 15, are purchased from the bazar whenever wanted.

30. It is not habitual for children to consume any of these drugs, and as it is not honourable for adults to use them also they are used privately, but in small companies. The use is mostly confined to the male sex, prostitutes, and women of loose character.

31. The habit of consuming any of these drugs is not formed at once, because they are at first occasionally and stealthily used, as it is not considered honourable to use them. When one has no fear for the loss of character and no one to find fault with him, then he can contract the habit within one month. Moderate habit always develops into the excessive, and then it is difficult to break off.

32. There is no religious or social custom requiring the consumption of any of these drugs.

33. The consumption of any of these drugs is regarded with disdain. The practice is not supported by public opinion. Respectable people regard the use of these narcotics as disreputable

because it leads to vices. The hemp plant is not worshipped in this district.

34. Habitual excessive consumers, such as gosavis, bairagis, fakirs, etc., will alone experience serious privation if they do not get the drug. Non-habitual or non-excessive consumers will not experience any privation. They will leave off the habit.

35. It is not feasible to prohibit the use of all these drugs, so long as alcoholic stimulants and other drugs are freely procurable. Excessive liquor drinkers are more formidable than ganja smokers or bhang or ghota drinkers, and therefore men who want intoxication may have ganja in preference to liquor. It is easy to effectually prohibit the use of these drugs by prohibiting the cultivation of the hemp plant without any discontent amounting to a political danger.

36. There is no religious objection for the use of ganja or bhang, as they are not liquids prepared by other castes; but there e ists a prohibition regarding the use of liquor. I know persons who wish to have intoxication preferring liquor to ganja, and therefore the consumption of alcohol is on the increase and will increase as the ties of religious bonds are becoming slackened by education, and the action of the respectable people in excommunicating drinkers of liquor becomes more and more hampered by the operation of the defamation section of the Indian Penal Code.

37. The effects of charas smoking are unknown here.

38. Flat ganja is alone to be had here.

39. Drinking ghota or bhang is less injurious than smoking ganja or eating majum or yakuti. The smoking of ganja affects one's brains—sometimes permanently—and the consumers of yakuti are found to be more intoxicated than the drinkers of ghota or bhang.

40. There is no native doctor's school in which the medicinal qualities of these drugs is taught. I know of one Native Assistant Surgeon prescribing a few drops of essence of ganja to a patient to give good sleep; but instead of its producing the desired effect the patient began to rave. I have not seen these drugs used in the treatment of cattle disease; but ganja is used for giving massala or medicine to horses.

41. I think ganja or bhang, if given as a medicine when occasion requires, (*a*) would act as a digestive element to persons not accustomed to eat or drink it habitually; (*b*) ganja smokers under ganja intoxication do not consider a long journey fatiguing; (*c*) I cannot say whether, in malarious or unhealthy tracts, these drugs would be preventive of disease. The present uses of these drugs are not for purposes (*a*) and (*c*), but for the purpose of getting intoxicated only.

42. Requires no answer in consequence of the reply to query No. 41 being in the affirmative.

43. Moderate consumers are not offensive; but they become excessive consumers by degrees, and then they are offensive to their neighbours.

44. The immediate effect of the moderate use even of any of these drugs is this, that the eyes of the consumer become red and his disposition peevish. It does not produce perceptible hunger. It is not refreshing, but stupefying. It does not allay hunger, but creates appetite. The effect of ganja-smoking is not good, especially on those who do not use animal food. I have seen most of the ganja smokers to be thin men, unable to comprehend any subject patiently. The intoxication lasts from one to three hours.

45 and 46. Even the habitual moderate use of ganja does produce noxious effects on the health of a person. It impairs the constitution of the consumer in some degree. It causes asthma, and makes a man drowsy and immoral sometimes. It deadens intellect, and sometimes produces permanent insanity, though not of the worst type. I know several cases of insanity caused by ganja-smoking. They become voilent, and are addicted to raving and abusing. They have not been allowed indulgence in the use of the hemp drugs, and therefore whether their tendency is for the excessive indulgence in the use of the drug is not known. I have not seen any instance of insanity caused by the bhang ghota drinking. Charas is rarely used in this Collectorate, as already stated.

47. The habitual use of ganja or bhang is not a hereditary habit, and it has no effect on the children of the smokers further than this, that they imitate their father and become ganja smokers also.

48. The effect of the habitual excessive use of the drug has a pernicious effect on the children of the smokers. The children are more weak.

49 and 50. The use of ganja and bhang is encouraged by prostitutes. Its use is moderate at the beginning, but develops into excessive after some time. When it reaches the latter stage it is more injurious to health than the former stage, especially to those who cannot get substantial food. An excessive ganja smoker admits that by his indulging in sexual intercourse to excess under the influence of ganja he has impaired his vital powers, and that as the ganja-smoking or ghota-drinking is not sufficient to procure for him intoxication, he is required to eat half a tola of opium in addition now.

51 and 52. Yes, the use of ganja or bhang has no direct effect on crime; but as the consumers thereof are mostly worthless persons, their congregation together on account of their habit induces them sometimes to plan a crime.

53. The accused in many cases charged for culpable homicide not amounting to murder, or causing the death of other persons by rash or negligent acts, have many times pleaded before me that they did the act while in a state of ganja or liquor intoxication.

54 and 55. No.

56. I have heard of cases in which dhatura was administered by criminals to their victims in bhang ghota.

57. I have not heard of ganja and charas having been eaten or drunk.

58 and 59. No improvement in the present excise administration of the drug is needed.

60. The present mode of control, *viz.*, the sale and manufacture of ganja and its export and import under licenses, is quite sufficient.

61. The present arrangements, as above described, are sufficient.

62. Ganja and bhang are nearly one and the same, as described in reply to query No. 2, and therefore the answer to query No. 60 applies to this.

63 and 64. No.

65. I think the present taxation in the shape of

contracts in the British territory and annas eight per each maund of the drug when exported from or imported into a Native State is reasonable.

66. Only flat ganja is produced here; but I think there should be no different rates of taxation for different kinds of ganja, because they will be troublesome to the exporters, manufacturers and sellers.

67. No.

68. There are no houses or shops in this district to my knowledge for the consumption of these drugs on the premises, and none such will thrive or be viewed with favour, as a majority of the smokers or drinkers still drink or smoke in private.

69. I must say that the wishes of the people are not consulted as they should be. The contractors are always inclined to open more shops, and they make some ganja smokers send a petition, which is complied with. If the people are told that it is in their hands to prevent the pernicious effects of the ganja smoking by objecting to the opening of a shop, they are sure to do so, as non-consumers of the drug form a majority.

70. No.

Oral evidence.

Question 24.— The statement that the preparation of yakuti and bhang is not permitted in Satara is based on information a contractor gave me. I do not know myself.

Questions 45 and 46.—Moderate use of the drugs is only injurious to those who do not get good food, *i.e.*, ghi or milk or animal food. Otherwise it does no harm at all. Excessive use alone causes insanity. The causes to which I have referred in my printed answer have not been in asylums. They are not violent, only raving and senseless in talk and business. They are not dangerous. I should like the word "violent" altered into "dangerous."

I know three of the cases intimately. The patients are still alive. They are at least void of intellect. They used all to smoke ganja. I do not know whether they took dhatura with bairagis or not. Other causes of insanity are loss of money, loss of wife, or female relative running away. These are the two principal causes. Dhatura also produces it. Also alcohol to some extent, as far as my experience goes. I have known cases of insanity caused by loss of women or loss of property. I do not know any other, except these five—loss of women, loss of property, dhatura, alcohol and excessive ganja smoking. When people go mad from loss of money or loss of women, they repeat the cause, *i.e.*, talk about it in their madness, saying "she is gone!" etc.

In all the three ganja cases above referred to, I knew the father, but not the mother in any case. I asked, however, about the mothers, and know that they are not insane: not one of them. I know no other relations than the father and mother in each case. I know nothing of grandfathers, etc., or other relations. One was a Karbari in a Native State; he is a political pensioner. He became mad thirty years ago and has been so since. His madness was attributed to ganja. I do not know whether he had taken dhatura; but people said it was ganja. I had known him as a boy.

The second case was an Inamdar's son living in Satara, where I was serving. He is 55 years old. He became mad ten years ago. He had smoked ganja for fifteen years previous to that. Whether there was any other cause, he alone knows. I cannot say whether he smoked dhatura. But I was told his madness was due to ganja. He eats opium, dhatura and bachnag now. It is the same person referred to in my answers 49 and 50. He had indulged in sexual excess. He has several children; but he has had none for twelve years; and he says that the reason he has had none since then is that he has no desire now through sexual excess. He now says this. He was renowned for loose character before he became mad. I only knew the father and mother in this case, and they were healthy.

The last case is the son of a peon. He is 25 years old. Since I retired I went to the Aundh State, and saw the father for the first time then, two years ago. The patient washes pots as a private servant. He is an idiot. I do not know how long he has smoked. I never saw him until he was brought to me by his father a year ago to be kept in confinement. The father said the insanity was due to ganja. I knew nothing of the case except what the father told me. I kept him a week while he was violent. I then let him go. He is still mad, *i.e.*, half insane, as I have above indicated.

In none of these cases can I say whether there was any other cause. I know that, so far as I have been able to ascertain, there has been no loss of women or property in any of them. And I know there was not liquor in the first two. In the third there probably was. Other causes may have existed, such as dhatura or other unknown or secret cause. All the cases were, however, attributed to ganja.

Question 59.—The ganja is inspected in shops, and if it is rotton or adulterated, it is destroyed. As a Government officer I have made such inspections. I have never discovered adulteration. The flat tops could not conceal an adulterant. Not even in ganja when broken up or in the tiny leaves of bhang could an adulterant be hidden.

---

37. *Evidence of* Mr. H. Ingle, *Retired Deputy Collector and Special Magistrate, First Class, Karwar.*

51. The alleged bad characters in the district are not, in any large proportion, habitual consumers of drugs. From what I have been able to learn, the moderate use of the drugs under enquiry has no connection with crime of any special character.

52. The previous answer is a reply to this question. It is said that a regular consumer of these drugs is soothed and comforted by their daily use. A *first* indulgence may be likely to incite to crime, but generally the individual becomes insensible.

53. Excessive indulgence in these drugs does not incite to unpremeditated crime. I know of no case in which it has led to temporary homicidal frenzy.

54. No.

55. I have not been able to obtain definite information on the points raised in this question.

57. Charas is said not to be consumed in Karwar. I have no information to give from personal knowledge.

38. *Evidence of* Mr. W. Almon, *Assistant Collector, Abkari Department, Bombay.*

1. The opportunities connected with my duties in the island of Bombay as Assistant Collector, Abkari Department.

2. The definitions given may be accepted. Round ganja is unknown here; only flat ganja is seen and sold.

(1) Bhang, subji, and maya; (2) charas; (3) ganja; (4) garda or broken ganja.

7. In the island of Bombay there is no cultivation of the hemp plant for (*a*), (*b*), (*c*), or (*d*).

14. I am aware that ganja is prepared in the districts of Ahmednagar, Satara, and Nasik, and that bhang is prepared at Surat. We receive supplies from these districts.

18. Ganja, charas and bhang deteriorate, I am told, by keeping, and eventually lose their narcotic properties. They keep good, it is said, for a year or two. In Bombay the deterioration is attributed to atmospheric moisture and dampness. The drugs should be stored in a dry godown. A godown where ganja is stored should be kept free of rats. Rats like hemp seed, and injure the ganja in their search for the seed. I know of one instance in which ganja was destroyed by white-ants.

19. In Bombay, ganja and charas are used only for smoking. Garda, that is broken ganja, is used for drinking. It is also sometimes given to buffaloes and cows as an appetizer. Garda is sometimes smoked mixed with ganja.

20. Ganja is smoked principally by Hindu sadhus and labourers, and by Muhammadans of the working classes, and by fakirs. A few of the better classes of both communities, chiefly among the Hindus, also smoke ganja. In Bombay but little charas is used. It is smoked by Pathans, fakirs, sadhus, and people from northern India. I estimate that there are of all classes about 2,000 to 2,500 ganja smokers, and from 100 to 150 charas smokers in Bombay.

21. Flat ganja is smoked in Bombay. There is no round ganja. A little garda is also used for smoking, mixed with flat ganja.

22. Very little charas is smoked in Bombay. The charas smoked is generally brought from Amritsar. I do not know if this charas is Indian or foreign.

23. So far as I know or can learn bhang is not smoked in Bombay.

24. Bhang is chiefly drunk in Bombay by Hindus from Guzerat, Kathiawar, and places north of Bombay. The Deccani and Konkani Hindus use it occasionally. I believe that bhang drinkers will be found chiefly among those classes of the people to whom the use of alcohol is prohibited. There are fewer bhang drinkers among the Muhammadans than among the Hindus here. But little bhang is eaten in Bombay. It is used in this way by the Hindus who drink bhang. I estimate that there are about 400 bhang drinkers altogether in Bombay. Garda is chiefly consumed as a drink in Bombay, and I estimate the consumers of garda in this way are from 400 to 450.

25. My belief is that the use of all these drugs is about stationary or slightly on the decrease in Bombay. The following figures show the average quantity of each drug brought into Bombay by the farmer during a year in the three last terms for which he held the farm:—

Term.	Average quantity brought in a year.			Population during term.
	Ganja and garda.	Bhang.	Charas.	
	Ind. Mds.	Ind. Mds.	Ind. Mds.	
1884—87 . .	358	71	8	773,196
1887—90 . .	417	65	8	773,196
1890—93 . .	380	70	6	821,764

27. Hemp drug consumers are confined to no particular class. These drugs are mainly consumed by labourers and religious mendicants. The better classes are chiefly habitual moderate or occasional moderate consumers of hemp drugs.

I would say (1) that the desire for an intoxicant of some kind, which is a pretty general feeling among all races; (2) religious prohibition to the use of alcoholic drinks; (3) association with hemp drug consumers; (4) want of money to purchase liquors in the case of very poor people; and (5) the use of a hemp drug as a medicinal agent,—are the chief circumstances which lead to the practice of consuming hemp drugs.

28. *Habitual moderate consumer's allowance per diem.*

Drug.	Quantity.	Cost.
Ganja . . .	One tola .	Two annas with tobacco, etc.
Bhang . . .	„ „ .	Nine pies with pepper, etc.
Garda . . .	„ „ .	Half an anna with pepper, etc.
Charas . . .	One-half tola	Two and a half annas with tobacco, etc.

Habitual excessive consumer's allowance per diem.

Drug.	Quantity.	Cost.
Ganja . . .	Three tolas	Six annas with tobacco, etc.
Bhang . .	Two tolas .	One and a half annas with pepper, etc.
Garda . . .	Three tolas .	One and a half annas with pepper, etc.
Charas . . .	One tola .	Five annas with tobacco, etc.

The costs here shown are for ordinary preparations. Exceptional preparations would be more costly, according to the ingredients used.

29. Ingredients ordinarily mixed—

With ganja, tobacco in about equal parts. With bhang, black pepper mixed in water; sometimes sugar is added. With garda, black pepper mixed in water; sometimes sugar is added. With charas, tobacco.

Ingredients exceptionally mixed—

Very exceptionally ganja is washed in rose water, mixed with tobacco and a particle of musk added and then smoked. Bhang is mixed in milk with dried rose buds, black pepper, sugar-candy, poppy seed, almonds, white pumpkin seed, melon seed, cardamoms, saffron and other ingredients. Garda is not usually prepared in a special manner. With charas goorako is smoked instead of tobacco.

Well-to-do people use the exceptional ingredients and poor people the ordinary additions.

I have not learnt that dhatura is used with hemp drugs in Bombay. I am told that it is necessary to mix tobacco with ganja and charas to make it smoke freely and to improve the taste of the smoke. The mixing of black pepper with bhang and garda is said to be essential to prevent its producing pains in the stomach. The other ingredients are added to make the drink more palatable and pleasant. I cannot learn that any ready-made preparation, "bhang masala," is sold here to be mixed with bhang.

30. I learn that the consumption of ganja, bhang, garda and charas is practised chiefly in company. The habitual consumer does also smoke ganja or drink bhang alone in his house. The consumption of hemp drugs in Bombay is mainly confined to the male sex. Occasionally females may be seen smoking ganja or drinking bhang or garda; but the use of these drugs by females is exceptional. The females that use these drugs are usually prostitutes. The use of these drugs is confined to adults. It is, I believe, very unusual for children to consume these drugs.

31. I think it mainly depends upon the character of the individual as to whether he will acquire the habit or not. If the individual does not happen to associate or come in contact with consumers of these drugs, he will not probably smoke or drink himself. On the whole, I would say that the temptation to form the habit is not great in Bombay; but the habit would be very easily acquired if the individual had friends and associates who were habitual consumers. I understand from my enquiries that the habit of smoking ganja, if of long standing, would be difficult to break off, and that the habit of drinking bhang is not so difficult to throw off. I believe the tendency is for the moderate habit to develop into the excessive; but this also depends very much on the individual himself. There are many moderate habitual consumers of hemp drugs who do not, I learn, become habitual excessive consumers.

32. I have not learnt that there is any social custom among Bombay people requiring them to use a hemp drug. During the Shimga and other holidays, bhang is sometimes made and drunk by Hindus who do not use alcohol. Offerings of bhang are said to be very acceptable to the god Shiva; but the offering of bhang is not essential. Offerings of bhang are said to be essential in the worship of Baldeo. Bhang is, I learn, offered to Dévi by those who cannot, on account of caste, offer spirits to the goddess. The use of bhang in the customs above referred to would not, I believe, be likely to lead to the habit of consuming the drug, except perhaps in the case of pujaris.

The Hindu ganja smoker, before smoking, will often make offering to Shiva by repeating the words "Lena Shankar Lena Babulnath."

33. Public opinion is averse to the moderate or excessive habitual use of any of the hemp drugs. The occasional use of a hemp drug by an individual would not, I am told, be regarded as disreputable. I understand that the habitual use of ganja is looked upon as more disreputable than the habitual use of bhang. I attribute the above mentioned sentiment as regards the habitual use of a hemp drug to the objection and dislike that respectable natives have to the use of intoxicants of all kinds. I have not learnt that there is any custom of worshipping the hemp plant by any sects of the people here.

34. It would, I believe, be a serious deprivation to an habitual excessive consumer of a hemp drug of long standing to have his supply of the drug cut off. The habitual moderate consumer would not feel the deprivation so great; but a person of this class would feel the deprivation for some little time also. Some, at any rate, of the occasional consumers of bhang would also consider they had a grievance, as they believe that the use of bhang is beneficial to their health. I estimate the total number of hemp drug consumers in Bombay at from 3,000 to 4,000.

35. In the island of Bombay it would, I believe, be feasible to prohibit practically the consumption of hemp drugs. The drugs would to some extent, without doubt, be smuggled and consumed illicitly. Prohibition would have to be enforced by making the possession and sale of a hemp drug a penal act. Prohibition would, I think, be an ill-advised measure. It would cause much discontent among consumers, and, having regard to its use in Hindu religious rites, the discontent would not, I believe, be confined to consumers. I consider that the discontent consequent on prohibition would amount to a political danger. I believe that if the use of hemp drugs was prohibited, many of the consumers would take to alcohol or opium, and many ignorant people would attribute the prohibition to the desire of Government to favour the consumption of liquor, particularly of European liquors.

36. My belief is that wines and spirits are now being to a certain extent substituted for hemp drugs. I believe that many of the poorer classes of consumers of hemp drugs will go into the liquor shops if they have money. The hemp drug consumer resorts to ganja or bhang because it is a cheaper intoxicant or he has caste objections against drinking liquor. I believe that the man with an English education, whose caste feelings are not strong, and whose parents would occasionally perhaps only drink bhang, will now take wine or spirits as being, according to his notions, more fashionable and in keeping with cultivated ideas.

37. As far as I have learnt, the effects of charas and ganja smoking are the same. The difference is said to be that charas is very much stronger than ganja.

38. Round ganja is not known in Bombay. Flat ganja is usually smoked here. Garda, when smoked, is usually mixed with flat ganja. Garda is seldom smoked without being mixed with flat ganja, and then only because it is cheaper. The difference between the effects of flat ganja and garda smoking is, I understand, one of degree; the latter being weaker in its effects than flat ganja.

39. I am told that bhang drinking is the least injurious form in which a hemp drug may be used, and that charas smoking is the worst form. Ganja smoking is said to be more injurious than bhang drinking. A little bhang only is eaten in Bombay, and I understand, when eaten, it is more injurious than when drunk. Garda is drunk in the shops like bhang, and is said to be stronger in intoxicating effect and more injurious than bhang.

40. Bhang and ganja are prescribed, I believe, by vaidyas as a medicine. Bhang is given to horses and garda to buffaloes as an appetizer or tonic.

41. I am told that the moderate use of ganja acts as a digestive; it alleviates fatigue, and is a preventive of disease in an unhealthy country, or where the drinking water is not good. It is said also to be an appetizer. Bhang in moder-

ation is reported to act as a food accessory, to alleviate fatigue, and to be a febrifuge. It is said also to have cooling properties on the system. Many of the Jain jewellers in Bombay are habitual moderate users of bhang. They use it as a food accessory, to alleviate fatigue, and on account of its cooling properties. I am also told that in Guzerat and Kathiawar bhang is drunk by people in the hot season on account of its cooling properties. Many of these people only use it in the hot season.

42. The habitual use of any of the hemp drugs, except in moderation, is, I believe, harmful. The occasional moderate use is, I understand, beneficial. I have come to these conclusions from what I see and hear.

43. I believe that moderate consumers of a hemp drug are not offensive to their neighbours.

44. The immediate effect of the moderate use of ganja on the habitual consumer is said to be refreshing. It produces slight intoxication. It creates an appetite, gives sound sleep, and acts as a digestive. The effects last about three hours. The after-effects are lassitude, prompting subsequent gratification, and producing a longing and uneasiness until the want is again supplied. The immediate effect of bhang on the moderate habitual consumer is said to be refreshing. It produces slight intoxication. It creates an appetite, and the effect lasts about seven hours. The after-effects are said to be similar to those produced by ganja smoking.

45 and 46. The habitual moderate or excessive use of a hemp drug does, I believe, eventually harm the consumer in a greater or lesser degree. The harm done will depend much on the individual's constitution and his style of living.

51 and 52. In Bombay it cannot be said that any large proportion of bad characters are habitual moderate or excessive consumers of hemp drugs. So far as I know or have learnt, there is only a little connection between crime and the use of a hemp drug. Consumers say that when they are under the influence of a hemp drug they feel timid and disinclined to fight; but I am also told that sometimes a ganja smoker acts violently. Some occasional consumers of hemp drugs are abusive when under the influence of the drug.

53. So far as I know, excessive indulgence in any of the hemp drugs does not generally incite to unpremeditated crime of any kind. In exceptional cases, however, excessive charas and ganja smoking is said to make a man violent and frenzied. I do not myself know of any case in which the use of a hemp drug has led the consumer to temporary homicidal frenzy.

54. I am told the drugs are not so used.

55. I do not know of any case in which a criminal, to further his design, has induced his victim to partake of a hemp drug and become stupefied. I am told that it is done but very rarely. It is said that complete stupefaction can be induced if a sufficient quantity of a hemp drug is consumed. An habitual consumer would require a larger quantity of the drug to completely stupefy him than would be required for a new or occasional consumer.

56. I have not learnt that in Bombay anything s added to hemp drugs to modify their intoxicating effects. Tobacco and goorako are smoked with ganja and charas to make the latter smoke freely. Black pepper is added to bhang and garda to prevent wind and stomach-ache, and other ingredients are added to make the drink pleasant. I have not learnt that in Bombay dhatura is added to hemp drugs for personal consumption or for administration to others. It is, however, said that sometimes dhatura and the roots of the jawari plant are added to hemp drugs to make them more intoxicating.

57. I do not learn that ganja and charas are eaten or drunk in Bombay. Garda is drunk generally. Garda is also eaten with bhang; but a very little of this preparation is consumed here.

58. I am acquainted with the present system of excise administration in respect to hemp drugs in the Island of Bombay, and I think it works fairly well. Some little improvement might be made; but there is no great need, I think, for any change. A very small number of people use hemp drugs in Bombay—from 3,000 to 4,000, I estimate—and the revenue raised is nearly Rs. 50,000 a year.

59. To sell the license for each hemp drug shop separately by public auction. To raise the duty of eight annas an Indian maund to Rs. 10 per Indian maund. To reduce the quantity of a hemp drug that may be imported, transported, sold or possessed in Bombay by an individual without a permit from 40 tolas to 5 tolas. By selling each hemp drug shop separately, the absolute monopoly system would disappear. To the consumer this would be an advantage, as he would have a number of shops with different shopkeepers, at any one of which he might make his purchase. Competition among shopkeepers would reduce the possibility of immoderate prices being charged, and insure to some extent the sale of good drugs. The number of competitors for the privilege of selling these drugs would be increased, and it is reasonable to expect that there would be some increase in the license fee collections. The rate of fixed duty, eight annas an Indian maund, is low, and might be increased to Rs. 10. This would bring in a small additional revenue. The rate of fixed duty might be increased, from time to time, as considered necessary.

The quantity of a hemp drug that may be imported, transported, possessed, or sold to an individual without a permit should be reduced from 40 tolas to 5 tolas to prevent people bringing into Bombay any excess quantity of a drug for use or sale.

63. I have no objections. See answer to question No. 59.

64. So far as the island of Bombay is affected, the quantity of a hemp drug which may be imported, exported or transported without a permit might, I think, be reduced from 40 to 5 tolas. This measure would tend to prevent people running out by rail to the Thana district and bringing back with them so much as 40 tolas of the drug or any one bringing into Bombay so much.

65. For the island of Bombay I do not think different fixed rates of duty should be charged on ganja, charas, bhang, and garda. A rate might be fixed for ganja, and the same rate charged on the other hemp drugs. Ganja is the chief hemp drug consumed; and there are not, I think, great reasons here for having differential rates of duty on other hemp drugs. The incidence of duty on hemp drugs is, I think, slightly low at present in Bombay as compared with that on alcoholic drinks. I have formed this opinion, having regard to the cost of hemp drugs and alcohol to the consumer as intoxicants.

66. Only flat ganja is consumed here. See answer to question No. 65.

67. I have no objections. See answer to question No. 59.

68. In the island of Bombay there are seven shops where ganja, bhang or garda, and charas are consumed on the premises. There are also thirteen places where bhang and garda are consumed on the premises. I feel very strongly that it would be a mistake to close such shops. The closing of these houses would cause a multiplication of smoking and drinking places, over which neither the excise nor police authorities would have control. It would increase the sale and smoking of ganja by fakirs and other very poor people at street corners, near markets, and at other places where people congregate. It would also drive many respectable ganja and charas smokers and bhang drinkers to prepare and consume the drugs in their houses, which would, I think, tend to increase the number of persons who make use of hemp drugs.

69. The wishes of the people in the neighbourhood of the proposed shop are consulted in Bombay before the Collector sanctions the opening of the shop, and the opening of the shop is disallowed if the objections of the people are considered reasonable. In the case where hemp drugs may only be sold at the shop the abkari officers make the enquiry, and in the case where drugs are sold and consumed on the premises additional enquiry is made by the police, as in the last-mentioned case a police license is required under Bombay Act XLVIII of 1860.

70. I do not think any hemp drugs are smuggled into Bombay from Native States. The present farmer holds the hemp drugs farm for the Thana district, and there is, I believe, but little smuggling from other districts into Bombay.

There is no general use of untaxed drugs in Bombay.

Oral evidence.

Question 20.—I base my figures here on the amount of the drugs actually supplied to the shops. From the figures given in answer 25 the wastage has to be deducted. These figures represent what was actually brought in. The amount actually supplied to the shops for use was less. The average for five years of ganja has been given me by the contractor as 258 Indian maunds, bhang 46 Indian maunds, charas 6 maunds 33 seers, garda 49 maunds. I believe this to be correct. In making my calculations I have used the estimates indicated in answer No. 28. I hold to these estimates. I think that the number of ganja smokers in Bombay is, as I show, far more than bhang drinkers. The bhang drinkers who occasionally drink would raise the total in answer 24 considerably. My estimate is on the amount required for habitual moderate use. I do not think that the occasional use of bhang is at all prevalent in Bombay. People from Gujarat do take it in this occasional way, but not Deccanis or Konkanis. Not even all Gujaratis.

Question 35.—I was personally told in making my enquiries that some people believed that the attack on hemp drugs was due to a desire to foster European liquor. I do not understand that it is a general impression; but I think it is the genuine opinion of some ignorant people.

Questions 45 and 46.—I have not personal knowledge of harm done by the habitual moderate use of these drugs; but I am told that the general opinion, the popular idea, is that the habitual moderate use does harm. It is thought that if a man is comfortably off and well-nourished that injury is prevented. Otherwise it is thought that ganja smoking affects the lungs and causes cough. There is also a popular opinion, I think, that the habitual user of the drug (even moderately) is sometimes not so trustworthy as others, less truthful and somewhat tricky. It is also said that the very excessive use of the drug causes lunacy, whether permanent or not I cannot say. I have myself no experience of any kind of harm from the habitual moderate use. I cannot be sure that I know anything even of the excessive use causing injury. About the shops I have sometimes seen some wretched emaciated looking men; but I cannot be sure that this state was produced by the ganja. I should not say that I see many such men about the ganja shops. It is the ganja shops where they are seen. In proportion to the consumers, I should say that there were more such men about ganja shops than about liquor shops. I would rather not say about opium shops, as it is some time since they were closed. Generally, then, my impression is that there are more wrecks from ganja than from liquor in proportion to the number of consumers; but not actually more. These wretched-looking objects are, I think, chiefly Muhammadans, beggars, fakirs. Fakirs are credited with indulging in excesses in regard to ganja, but not (I think) in other excesses. Their want of food, clothing and comforts would tend to emaciation apart from ganja. I believe they take ganja because they are idle and have nothing to do; possibly also that they may not feel their privations so keenly. I think it possible that persons in comfortable circumstances only occasionally become wrecks from ganja; but I cannot say that I know a case. The persons I refer to are chiefly but not exclusively of the fakir class. I have occasionally seen people in shops who gave me the impression that they had been better off and had been injured in this way by ganja. I visit the shops for purpose of revenue duty. I do not consider it any part of my duty to enquire into the antecedents of consumers or the effects of the drugs.

Question 58.—The revenue will be about Rs0,000 this year. The increase I believe to be due to competition in the auction sales and nothing else. I do not attribute it to the closing of the madak and chandu shops. I believe these last-mentioned drugs are as much consumed as ever. This year's revenue will be higher than ever before; but it has been steadily going up for years.

Question 59.—Since I have known the business, we have had only one contractor for each period for the whole of Bombay. I have indicated that the separate shop system would increase revenue and tend to improve quality. But I do not think that it would tend to increase consumption. The high license fee fixed by auction for each shop would keep up the price of the drug. This being the principal duty on the drug would also tend to prevent smuggling, as it would not be to the advantage of a shopkeeper to smuggle or connive at smuggling. I do not think, however, that the tendency would be for shopkeepers to push the sale of the drugs.

In regard to direct duty, I think that Rs. 10 a maund is as high as we can take in the Bombay city owing to the danger that there would be of smuggling. It would be less dangerous to have

a higher duty with the large contract system, because the large contractor would not be so ready to take to illicit practices. I do not think that there is any advantage in respect to control in the city of Bombay from the large contract system, though there is in districts. We have the small contract system in the city in respect to liquor.

I do not think that the Government should direct its attention to the refinement or purification of the drugs. I think the condition at present entered in the contractor's license sufficiently provides for any action of Government in respect to the purity and quality of the drugs. The only complaints we ordinarily receive are in respect to the drugs not being sufficiently intoxicating. We destroy drugs that have deteriorated. I do not think I have ever had to take action myself. The contractor destroys useless stuff because it is his interest to do so.

Question 68.—My experience, *i.e.*, what I am told, is that the places where people meet to smoke chandu and madak are four times as numerous as they were when the shops were open.

The seven "shops" referred to in this answer are places where the people sit and smoke. The thirteen "places" are where the people take a drink of bhang or garda and go. They do not hang about. All these have the police license for consumption on the premises. They are all old-established places which have not changed for years. Applications for new shops, *i.e.*, to increase the number, are not presented. The police are only referred to in regard to consumption on the premises.

My impression is that the tax on the drugs is too low. I think that the ordinary liquor consumer pays twice as much for what he wants as the ordinary ganja consumer would, or three times as much as the ordinary bhang drinker. I think the rates should be equalised.

---

39. *Evidence of* Rao Saheb Ganesh Pandurang Thakar, *Deshastha Brahmin, Mamlatdar, Pandharpur, Sholapur District, at present auditing the jamabandi accounts of the Poona District, Poona.*

1. I have been mamlatdar for the last fourteen years, and have served in the districts of Nasik, Ahmednagar, Satara and Sholapur, in all of which the hemp plant is more or less grown. As mamlatdar, I have opportunities of observing the cultivation of the plant, of watching the system of excise administration in respect to the hemp drugs, of coming in contact with the classes of people more or less addicted to the use of them, and of observing its effects on the constitution, general habits and mode of living of such people. My answers are based more on practical experience than on any information derived from books.

2. In all the four districts above mentioned, charas is neither separately collected nor sold as narcotic. The resinous substance which sticks to the hands of the persons employed in collecting the flowering tops is sometimes scraped off and made into small pills which are used for smoking; but such pills are few and their use very rare. Ganja and bhang are locally known by the same names. The round variety of ganja is not manufactured at all. The chur or broken ganja is not sold as a separate variety, but is mixed with the dry leaves of the female hemp plant, and the whole is sold as bhang. The leaves of the male plant are not used as bhang. Uncultivated plant is not found in this part. The definition of bhang will therefore have to be modified as below, so as to suit the drug sold as bhang in these districts:—

> Bhang consists of small detached pieces of ganja, which remain as residue after ganja proper is taken off, mixed with a certain proportion of dry leaves of the cultivated female hemp plant.

The definition of flat ganja may be accepted as it is.

3. I know no district in which hemp plant grows spontaneously.

4 to 6. I know nothing about this.

7. In many districts of this presidency hemp plant is cultivated for the production of ganja. In the four districts mentioned above there is no separate cultivation exclusively for the purposes (*b*), (*c*), and (*d*). As stated in answer to question 2, charas is not manufactured at all. I do not know of fibres ever being taken out from the hemp plant. In one village, Kamargaon, in the Ahmednagar district, hemp plants are cultivated, I am told, for seed alone. As already stated, ganja and bhang are taken from the same plant. Ahmednagar is the only district in which a large area is under hemp cultivation. In others hemp cultivation is carried on to a very small extent. The ganja crop being of no other use, except as a narcotic, such quantities are only raised as are sufficient to satisfy the requirements of the district and the surrounding non-producing places.

8. I did not get statistics about such areas. I am, however, of opinion that in some districts there is a gradual decrease in the area under hemp cultivation, owing probably to the fact that ganja is now being grown in many places where it was formerly not cultivated, and consequently where it was required to be taken for local consumption from other localities. Cultivators of the hemp plant are not, under the present system of the abkari administration, at liberty freely to take the ganja produced by them to the market, and sell it there openly like other commodities. For its sale they entirely depend on the ganja farmer. If, therefore, the ganja is not purchased by the farmer, the cultivator must keep it in his house and allow it to decay, thus losing the profit from his field for one whole year. This state of things is quite likely to induce the cultivator to give up the cultivation of the hemp plant, and this tendency may partly act in reducing the area under hemp cultivation.

9. Before the setting in of the rainy season, the ground which is to be sown with the hemp plant is prepared, as for an ordinary crop, by once ploughing and harrowing two or three times. About the beginning of July the seed is sown in rows about two feet apart; when the crop is about a foot high it is cleared of grass, etc., by hand-weeding or with the help of a small hoe. If the rainfall is sufficient and seasonable, the crop grows without any artificial irrigation. If the rainfall is scanty, it requires to be watered once a week or so. When the plants attain suffi-

cient maturity to enable the expert to distinguish between the male and the female plants, the extirpation of the male plants—which is the most important process in the cultivation of the ganja crops—commences. The male plants are carefully searched for and pulled up, as, if allowed to remain, they spoil the whole ganja crop by making the female plants set seed freely and thus destroy the resinous matter, which is the real active principle in ganja. Transplantation system is never used. Ordinary cattle-yard manure is generally used, which, as in the case of other crops, increases the quantity and improves the quality of the outturn. The same plot of ground is not generally sown with ganja successively for two or more years. The plots are changed by rotation just as in the case of other crops. It is no doubt somewhat difficult to distinguish male from female plants while they are young, and it is only by long practice that the experts themselves are able to do so. I remember it to have been stated to me that the earlier appearance of buds upon a plant is one of the signs of its being a male plant. The crop is ready for harvesting about the end of November.

10. No, they are of the same classes as other agricultural cultivators.

11. No, never to my knowledge.

12. No, I don't think wild hemp is cultivated anywhere in the four districts for the production of ganja.

13. In the Konkan district, lying at the foot of the Sahyadri range of hills, there is no cultivation, I am informed, of the hemp plant for ganja. In all districts above the Ghâts, however, hemp plant is cultivated more or less for the production of ganja. Dry climate, moderate rainfall, and rich black or red soil, are the necessary conditions for the successful growth of hemp plant for ganja. No ganja can, I think, be produced in places where there is excessive rainfall, as in the Konkan. Whether the elevation above sea level has much to do with the success of a ganja crop, I am not in a position to say definitely.

Among the Deccan districts, Ahmednagar and, after that, Satara are the only districts in which there are extensive hemp plantations as compared with other Collectorates. Why these two alone are selected for such extensive hemp plantations in preference to others, which possess the same advantages of climate, etc., is a question which is somewhat difficult to answer. It seems to me that the ganja produced in these two districts is considered to be of a superior quality, and has consequently a greater demand in the foreign market. Large quantities of this ganja are exported to many of the European countries, and this, I think, is the reason why these two districts have such an extensive hemp plantation all along.

14. In all the four districts mentioned above ganja and bhang are prepared, but no charas. In Ahmednagar and Satara, large areas are under hemp cultivation, and large quantities of ganja produced there are sent out to other places. In other districts ganja is produced in such quantity as is sufficient to satisfy the requirements of the district itself.

15. When the hemp plant crop is ripe for harvesting (which is indicated by a change of the colour of the leaves into a brownish yellow, and by the falling off of the older leaves), the flowering tops are cut from the stems and collected into heaps on a well-prepared plot of ground. The flowering tops are generally cut in the morning, and are exposed in the sun till 3 or 4 P.M., when they are trodden under foot. The exposure is, I think, necessary in order to remove, by evaporation, the excessive vegetable sap which is found in all fresh cut plants, and which, if allowed to remain, would spoil the tops when they are trodden under foot. In the evening the tops are trodden under foot till they assume a flat shape. The heap is then turned over and exposed to the atmosphere till morning. Another instalment of the flowering tops is then thrown over it and trodden as before. This process continues for four or five days, until the heap of the compressed ganja becomes a foot high. The ganja is dry by this time, and is ready for use or despatch to other places. The treading under foot is, I think, necessary in order to thoroughly mix the resinous substance with the fibrous portion of the flowering tops and to make it compact, so that it may be preserved therein for future use.

Ganja prepared in this way is used for smoking. Before it is smoked it is washed two or three times to clear it of dirt, etc, and is then kneaded on the palm of the left hand by the thumb of the right, a small quantity of water being added at intervals. This restores the resinous matter to its original sticky form and enlivens the active principle in the ganja. The more the ganja is rubbed the more it gains in intoxicating properties; and it is said that an excessive ganja smoker would sometimes place a small quantity of soaked ganja upon the sole of his shoe and walk for some distance in order that the ganja may be completely pressed by the heel of his leg, and thus the intoxicating properties may be enhanced. Ganja thus rubbed is mixed with tobacco and smoked.

The only preparation used for drinking is ghota, a delicious drink made of bhang. A small quantity of bhang is first cleared of dirt, etc., and is then reduced to fine powder by pressing between two stones, a small quantity of water being added at intervals. It is then mixed with water and filtered through a piece of cloth. Milk, sugar, and spices are then added. Ghota is sometimes used as a cold drink during hot season.

(B) There are four known varieties of ganja preparation made use of for eating—majum yakuti, gulkhand, and shrikhand. They are prepared almost in the same way, the spices added being different in the different varieties. The active principle of the narcotic is extracted by boiling ganja in ghi and water mixed in equal quantities. One part of this narcotised ghi is added to sixteen parts of sugar syrup, and the whole, when solid, is cut into small cakes. This is majum. In the same way other varieties are prepared by mixing the essence of ganja with different spices.

All these preparations are from the cultivated plant, not from the wild plant.

NOTE.—No other form, except ganja and the so-called bhang, is prepared from the hemp plant in this part of the country. The preparations made from ganja, such as majum, etc., ought to have been stated in reply to question No. 19.

16. No; as already stated, bhang is not separately prepared. The small broken pieces of ganja that remain are used as bhang. I do not know anything about the wild plant.

17. Not by any particular class of people. The cultivators who cultivate hemp plants prepare ganja. Charas and bhang are not separately prepared. The persons who are licensed to sell ganja and its preparations generally prepare the varieties used for eating. Ghota is prepared by the person who wants to drink it.

18. Yes; ganja and bhang deteriorate by keeping. Bhang being naturally a milder intoxicant deteriorates earlier. It has not been ascertained by actual experiments that they quite lose their effects in time. But as their intoxicating properties are gradually decreased, it seems that they will lose them entirely in time. They can be kept good, with ordinary care, for not more than twelve months. The principal causes of deterioration are, I think, exposure to heat, damp, or atmosphere and frequent handling. The first destroys the resinous substance by its formation into some other substance by chemical combination with the ingredients of the atmosphere, rain, etc.; and the second by separating such resinous substance from the flowering tops, which, being dry, allow it to be easily detached from them by the smallest force.

19. Ganja is also used for preparing majum, etc., as stated in reply to question 15. It is also used as a medicine by physicians practising in native medicine to cure looseness of bowels, to improve digestion, and, in small doses, to bring on sleep when the patient is restless. It is also used in the treatment of some of the cattle diseases. These uses are not limited to any particular localities.

20. Charas smoking is nowhere practised, except perhaps to a very small extent in the town of Bombay. In the mufassal ganja alone is used. No statistics are available as to the classes and the proportion of people smoking ganja. Different estimates might be given about this proportion; but none, I think, could be accepted as correct. The best mode of finding out this proportion would, I think, be the following:—Take the quantity of ganja consumed during the year 1892-93 for the whole presidency; find out the daily consumption by dividing this quantity by 365; divide this quantity by the average rate of consumption of one person using the narcotic per diem, which I take to be about three-fourths of a tola. The quotient will represent the number of persons using ganja. This, divided by the population of the presidency according to the census of 1891-92, will give the proportion of ganja smokers to the whole population. It is true that the rate of consumption is not uniform either with reference to the several classes of consumers or in respect to the different varieties or preparations made from ganja. But, for the purpose of finding out the proportion, the above-mentioned quantity may safely be taken, I think, as a fair average.

Ganja-smoking is not restricted to any particular localities; it is practised more or less in all parts of the country. The people most addicted to the vice of ganja-smoking are mendicants, ascetics, fakirs, gosains, bairagis, and such other irresponsible classes who pass an easy, idle life, maintaining themselves chiefly on begging. Ganja is also smoked by artizans and men of handicraft, such as smiths, weavers and drummers, who are required to work hard and continuously for a long time during day and night. In a few instances prostitutes and persons of loose character smoke ganja.

21. In this part of the country flat ganja alone is used for smoking. No other variety is known.

22. No charas is used in the mufassal.

23. Bhang is not used for smoking. The chur of ganja, however, which is sold as bhang, and which contains, though in a smaller proportion, the intoxicant properties of ganja, is in a few instances used for smoking by poorer classes.

24. The use of bhang for drinking is not limited to any particular localities or classes of people. The drink prepared from bhang called ghota, being however somewhat costly, is usually used by well-to-do people, and only occasionally by ascetics, mendicants, etc.

25. The use of charas is not known in the mufassal. No statistics are available in respect of the consumption of ganja or bhang. I am of opinion that there is a gradual decrease in the quantity consumed of both these drugs, owing probably to the fact that the people of the mendicant class, who form the majority of the ganja smokers, are gradually lessening in number. But the decline does not seem to be of any appreciable extent.

The increase in the realisations of the abkari revenue from intoxicating drugs cannot be accepted as an increase in the quantity consumed. The increase is to be found almost exclusively in the license fees, which only represent the amount paid by the contractor to Government for the purchase of the right to sell ganja and its preparations, without the slightest reference to the quantity consumed. In a particular year the total quantity consumed may be less than the previous year; but the contractor would still pay a higher amount to Government as license-fees, endeavouring, of course, to recoup the deficit by enhancing the retail price at which he would sell ganja to the consumers.

26. It will simply be a matter of opinion and conjecture to give such a percentage. I can, however, say this much, that there are very few occasional consumers, moderate or excessive, in this part of the presidency. It is not customary to use ganja or any preparation thereof on festivals, worship, or any other religious ceremonies. Drinking ghota or the drink prepared from bhang is neither enjoined by religion as a necessary ceremony to be observed on the Maha Shivaratra day, nor is it practised as a matter of fact. The occasional consumption, therefore, both of ganja and bhang, is very rare. The majority of consumers of both the drugs is habitual moderate consumers, excessive consumers being proportionately few in number.

27. As already stated in reply to question No. 26, occasional consumption is very rare. Habitual moderate or excessive consumption is not confined to any particular class of people. The habit of excessive consumption is purely individual. An excessive consumer may be found in any class of people. Well-to-do people who can afford to pay for any quantity of ganja are generally excessive consumers.

28. Average allowance of ganja (for smoking) per diem is to (*a*) one tola, (*b*) two tolas. The average allowance of majum and other preparations of ganja is about half the above quantity, as those preparations contain the essence of ganja, which is a more powerful intoxicant. The cost would be different in different districts, according to the retail sale price, which varies greatly in different places. The average cost would be—

for (*a*) half an anna } for ganja.
„ (*b*) one anna }

I don't know about charas or bhang.

29. I do not know of any ingredients ever being mixed with these drugs. Dhatura is not used to my knowledge. I do not know bhang massala.

30. Ganja-smoking is practised more in company, especially among mendicants, etc., than in

solitude. Majum, yakuti, etc., are, on the other hand, consumed more in solitude than in company. Yes, the use of these drugs is mainly confined to the male sex and to the mature age. No, children are not found to indulge in these drugs.

31. The habit is not easily formed; but, once formed, it is certainly difficult to break off. Like other intoxicants, these drugs have also a tendency to develop a moderate habit into an excessive one. Among bairagis and others who form the largest class of ganja smokers this tendency is, however, kept in check by the difficulty which they find in obtaining the money sufficient to buy the required quantity of ganja.

32. I am not aware of any such custom prevailing in this part of the presidency. It is sometimes said that at Shiva puja (or the worship of the god Shiva) ghota drink is necessary. But this is not a fact. Habitual ghota drinkers prepare the drink at such puja for themselves, and offer it to a new man who may happen to be in their company as a mere matter of courtesy, entirely leaving it to himself to take a small quantity if he chooses to do so.

I remember, however, it to have been stated to me that it is a custom among the persons of the ascetic class to initiate a new man to ganja-smoking before he can be formally admitted to their class as a regular disciple. Once introduced to smoking in this way, he gradually falls into the habit, and in time becomes a thorough ganja smoker.

33. Consumption of ganja and bhang in any form is regarded as a vice, and looked upon as a practice unworthy of society. The public would not object to the use of these drugs on religious grounds; but on social grounds it would be held in great disrepute, especially the consumption of ganja and its preparations. This sentiment is primarily to be attributed to the possession by these drugs of intoxicating properties, and to their mischievous effects on body and mind. The use of intoxicants is regarded with contempt by every society; and the Indians, who, under the warm climate of their country, can altogether dispense with such use, would naturally look upon it as one of the worst type of indulgence. The fact that the number of the ganja consumers is proportionately very small has something to do with this sentiment. No narcotic or stimulant would fall in disrepute if it is indulged in by a whole nation. Were, therefore, all the Indians, or at least a large majority, users of this narcotic, its consumption would not have been regarded with so much contempt. But, as the number of persons indulging in these drugs is very small, the consumption is regarded by the non-consuming population as a bad practice. Ghota drink, not possessing such strong intoxicating properties, is not in so much disrepute.

I know of no custom of worshipping the hemp plant on any occasion.

34. Yes; it would, I think, be a serious privation to all classes of the consumers of these drugs to forego the consumption of the particular drug they use. Their habit of using the particular drug is, by long practice, carried to such a height that they will not be able, under any circumstances, to break it off soon. Nor will they be satisfied by the use of any other drug or stimulant for the one they had been using. If, therefore, they are prevented from using the particular drug, there will be serious discontent and uneasiness among them.

Of the consumers, 60 per cent. are, I think, gosains, bairagis, mendicants, etc.; 30 per cent. artizans, men of handicraft, etc.; 5 per cent. prostitutes; and 5 per cent. others.

35. Under the present circumstances it is not, I think, feasible to stop altogether the use of any of these drugs. Such a prohibition would undoubtedly encourage illicit consumption, at least for some time, especially among the mendicant class, which forms the majority of the ganja-consumers, and who will not be satisfied by the substitution of any other narcotic.

Such a prohibition could be enforced either by recourse to special legislation, making the use of the narcotic penal, or by preventing the cultivation and importation of ganja altogether. But such a serious step would, I think, be quite uncalled for, and would create serious discontent among the consumers. I am not prepared to say that it may amount to a political danger. The whole body of the consumers, taken together, is so insignificant in number and wanting in influence that they are incapable of spreading the infection of their discontent to the general public, so as to stimulate them to any action amounting to political danger.

I do not think alcoholic stimulants or other intoxicants will be had recourse to in case such a prohibition is enforced. Such substitutes would not satisfy ganja consumers of long habit.

36. No, I don't think alcohol is being substituted. If there be any decrease in the quantity of these drugs consumed, it is to be explained by the fact of the gradual disappearance of the mendicant class rather than by the substitution of alcohol.

37. Charas-smoking is not known in this part.

38. Flat ganja alone being used, I cannot answer the question.

39. I am not in a position to answer this question satisfactorily. In practice, however, I have found that, in the long run, ganja smokers are more injuriously affected than those that eat or drink it in some form. The reason, I think, is that the poison directly enters by inhalation into the lungs, and is absorbed by, and circulated through, the system more rapidly, thus producing more injurious effects.

40. The reply is already given under question No. 19.

41. I am not in a position to state definitely whether the moderate use of these drugs may be beneficial or not. In practice, however, it is used as a food accessory as well as to give staying-power. I do not know of ganja or bhang ever being used as a febrifuge. I refer to moderate occasional use.

Moderate habitual use.—It is also used to give staying-power under severe exertion.

Occasional use is not restricted to any classes.

Habitual use—(*b*) prevails among persons who are required to work hard and continuously for a long time, such as smiths, dooly-bearers, weavers, toy-makers, etc.

42. I am not in a position to answer.

43. Yes; as far as I know they are perfectly inoffensive.

44. The immediate effect is to give a pleasant sensation, stimulation to work, and some appetite. Yes, it is refreshing. Yes, it produces intoxication, but not such as to deprive the consumer of his senses. It does not allay hunger. It creates

appetite to a small extent The effects last for about an hour or an hour and a half. Yes; the after-effects are general depression of spirits, moroseness and unwillingness to work. Want of subsequent gratification produces longing as well as uneasiness.

45. Habitual moderate use of the hemp drugs is observed to cause the following infirmities. Whether these results can, and if so by what scientific process, be connected with the consumption I am not in a position to say. A person long given to the habit of ganja consumption, even in a moderate form, is found to be very thin and generally weak, with impaired digestion, and suffering from bronchitis and, in a few cases, from asthma. He becomes lazy and averse to hard work; but his moral sense is not impaired, nor does he acquire habits of immorality or debauchery. I am of opinion that a long use of the drugs would result in a loss of appetite for sexual passions, owing probably to the affection of the nervous system.

I am not in a position to say definitely to what extent the use of these drugs is connected with the production of insanity.

46. The above injurious effects are observed in an aggravated form in an habitual excessive consumer. His constitution is completely pulled down, and he becomes quite useless for work. He suffers from bronchitis and asthma of a worse type and is labouring under constant headache, uneasiness, and vacantness of mind.

47 and 48. No, not to my knowledge.

49 and 50. I have no information on these points.

51. I am not of opinion that any large proportion of bad characters are habitual moderate consumers of these drugs. The classes generally known to be of bad character in this part of the country are:—Gopals, Wasudevs, Phaseparadhis, Dombaries, Katkaries, Chitrakathis, Kaikadis, Berads, Garudis, Lamans, and Bhamtes. These, as a rule, are wandering tribes, never remaining in one place, but moving from place to place, showing their tamashas and juggleries, and begging alms. I have never found any of these tribes especially addicted to the use of these drugs. Their mode of life, their frequent movements from one place to another during the dark nights and their encampments in lonely jungles removed from human habitation, naturally require them to be always very watchful and alert. They must always be active and ready for any kind of action. Any long use of these drugs, even in a mild form, would make them lazy, idle, weak, and quite unfit for such work as they are called upon to perform for the very maintenance of themselves and their families. They, therefore, scrupulously avoid, I think, indulging in such narcotics.

The moderate use of these drugs has, I think, no connection with crime in general or with crime of any special character. There does not seem to be any intrinsic quality in the use of the drugs to create a tendency to commit crime. On the contrary, infirmity and weakness, which are the necessary consequences of a long habit of ganja consuming, make a man useless for the commission of crime. Ganja consumers may sometimes be found to be inclined to commit petty thefts when they are hard-pressed for money. But this inclination is common to the use of all other narcotics when the consumers are reduced to similar circumstances. Opium eaters and alcohol drinkers are often reported to have committed thefts when hard of cash. And this inclination must naturally be much less powerful in ganja consumers, as the narcotic required by them is comparatively very cheap.

52. There is nothing, I think, even in the excessive use to stimulate crime. Such use would, I think, by making a man still weaker, make him more incapable for commission of crime.

53. I don't think excessive indulgence in any of these drugs incites to unpremeditated crime. It may make the consumer peevish, liable to easy provocation, and sometimes quarrelsome, but would not stimulate him to commit unpremeditated crime of a violent nature. I know of no case in which it had led to temporary homicidal frenzy.

54. I don't think these drugs are ever used by criminals with the special object of fortifying themselves for the commission of a premeditated act of violence or other crime. There may be some persons who are bad characters, and at the same time addicted to the use of these drugs. Such persons may sometimes indulge in such drugs before proceeding to commit an act of violence, but that is not for the particular purpose of fortifying themselves, but is in accordance with their usual habit of taking a dose before commencing any work, good or bad, which requires concentrated exertions or hard labour. In old times, we read stories of a dacoit or thug smoking a chillum of ganja before proceeding to do his work of thuggy. But such instances are now very rare.

55. Yes, sometimes such cases are said to have occurred, though none has officially come before me. It is said that sweetmeats prepared from these drugs, being most suited to avoid suspicion, are generally used The victims selected are generally persons of tender age, and in some instances simple ignorant women. These can be easily induced to partake of the sweetmeats. Such cases, if any, must no doubt be very few.

56. I have no information on the point.

57. Charas is not used. The forms in which ganja is eaten have already been mentioned in reply to question No. 15. I have also briefly noticed, in reply to question No. 55, the use of such eatables made by the criminals to facilitate the commission of crime. I have nothing to add.

58 and 59. The present system is working satisfactorily, with the exception of a few points which will be noted below under appropriate headings.

60. Under the present system the cultivation of the ganja-bearing plants and the process of its preparation are, I think, sufficiently controlled. A cultivator, though he is not prevented by law from cultivating hemp plant, is not at liberty to prepare ganja from it without first obtaining a permit from the Collector of the district. Hemp plants as such, being of no use as a narcotic, unless ganja is prepared from them, no restriction seems necessary on their cultivation. The present control on the preparation and the import, export, and transport is quite sufficient to guard against smuggling and the loss of excise revenue.

There is, however, one point which seems to me to be objectionable. Under the present system the cultivator of the hemp plant is placed somewhat at a disadvantage. He is not allowed to take the ganja produced by him to the open market, and sell it there to any customer who may offer to him the highest price. He must sell it to the ganja farmer. He must either submit to the terms, however disadvantageous they might be,

offered to him by the latter, or allow his ganja—an article naturally liable to speedy deterioration—to decay. Then again, if the quantity of ganja produced in a particular year, being in excess of the requirements of that year, is not purchased by the ganja contractor, he (the cultivator) is not at liberty to dispose of it by selling to any customer he may happen to find. Special legislation having thus reduced the number of his customers to a minimum, the cultivator is debarred from securing to the full extent the benefits of free competition and of the natural law of demand and supply. This is rather unfair, and requires, I think, an alteration in the present system, so as to improve the position of the cultivator. My idea is that it would be more reasonable to make the ganja-farmer suffer for such disadvantages than the poor cultivator. This can be done, I think, by the following arrangements, which I therefore most respectfully beg to suggest for the consideration of the Commission.

Individual cultivation of ganja should altogether be stopped. No cultivator should be allowed to cultivate ganja on his own account. The right of selling (retail) ganja should be sold on the condition that the purchaser (ganja-farmer) will have to make his own arrangements for the production of the supply of ganja required for the annual consumption of the district or province for which he has obtained license. The right of retailing ganja should be put to auction and made final in the month of May or June instead of in the month of July as at present, so as to give the ganja contractor sufficient time, before the sowing of hemp plants commences, to make arrangements with individual cultivators to raise ganja for him sufficient for the year's consumption. He should apply for and obtain from the Collector the necessary number of permits for the cultivation of hemp in the names of such cultivators as would agree to raise the crops for him. He may, if necessary, advance money to the cultivators on the one hand, or bind them by such securities as may be deemed necessary on the other, in order to ensure the production of the required quantity, and will be responsible for the purchase of the whole quantity produced for him at the rates agreed upon between him and the cultivators.

By this arrangement the cultivators will be quite free to propose their own terms to the contractor, and to refuse to cultivate the hemp plant for him in case they are not accepted by him. On the other hand, the contractor will be at full liberty to ask such cultivators to grow ganja for him as would agree to sell it to him at the lowest prices, or to cultivate it himself if he thinks such cultivation more profitable. Thus the law of free competition will have its full scope; the ganja contractor will be careful not to carry the hemp plant cultivation to any unnecessarily large extent, and some of the land thus set free will be more usefully employed by the production of ordinary crops. Moreover, the rights of cultivating and selling ganja being combined in one and the same person, there will be less room for smuggling, and the license-fees may probably bring in a larger revenue to Government.

61. Charas is not produced in this part.

62. There is no separate cultivation of the hemp plant for the excessive production of bhang.

63. I have already expressed, in answer to question No. 60, my views with regard to the wholesale price, *e.g.*, the price at which the ganja farmer buys ganja from the cultivator who produces it. I am humbly of opinion that the retail price, *e.g.*, the price at which the farmer sells ganja to the customers, is also objectionable. The selling price is not officially fixed under the present system. The farmer is left to himself to fix any arbitrary price he likes. He having secured the monopoly of the sale of these drugs in a particular locality, the consumers therein have no alternative but to purchase them from him at any price he may choose to set upon them. Thus it sometimes happens that the farmer makes large profits by selling the drugs very dear, the whole burden of these enormous profits falling on the poor consumers. Here, too, the natural law of demand and supply does not operate freely. I am therefore respectfully of opinion that the price at which a ganja farmer should sell ganja, etc., to the consumers should be officially fixed for each district or locality according to its circumstances. This suggestion may be objected to on the ground that a farmer may suffer loss if in a particular year less quantity is sold than was estimated at the time he purchased the farm. True, it is quite probable that such a contingency may occur; but the farmer must be prepared to take his chance as in the case of other contracts, such as that of toddy, country liquor, tolls, etc. In the case of tolls, for instance, the fees to be levied on conveyances are fixed, and the contractor is left to take his chance. He is not at liberty to increase the rates of fees, because he finds that the number of articles passing by his toll-bar is not sufficient to recoup the amount he has paid to Government. In the same manner I think the selling price of ganja may be regulated. It is true that there have been no complaints; but this is no reason why feasible improvements should not be made.

I shall illustrate by an example. Take Poona district and the town of Bombay. The quantity consumed during 1892-93 is respectively 248 and 345 maunds. The Poona farmer has paid Rs. 17,050 as the license-fee, while the Bombay man has paid Rs. 39,500; so that the Bombay man had to pay to Government Rs. 45·7 per maund $=\left(\frac{39500}{345}-\frac{17050}{248}\right)$ more than the Poona man as license-fees: add to these the duty of 8 annas per maund paid for transporting the ganja to Bombay from other districts, the conveyance charges of ganja from Poona and Bombay, which would be about Rs. 2 a maund, and the establishment charges, which will be higher in Bombay than in Poona, amounting to, say, about Rs. 10 a maund. Thus it may be seen that the Bombay farmer has to pay about Rs. 60 more per maund than the Poona man. Now let us see what is the difference between the selling prices in the two places. The retail sale price in the Poona district is Rs. 120 a maund, while that in the town of Bombay is Rs. 285 a maund. The extra expenditure that the Bombay farmer is required to incur is Rs. 60 a maund, as shown above. Deducting this from Rs. 285, still there is a profit of Rs. 105 a maund to the Bombay man (Rs. 225—120, the selling price in the Poona district, = 105). Thus the Bombay man gets about Rs. 100 per maund more than the Poona man, and this amount finds its way into the pocket of the farmer.

If the figures on which I have made my calculations be reliable, my inferences would be quite correct.

Then again, I am of opinion that the prices officially reported are not the real prices. In practice the ganja contractors charge a much higher rate. In the Poona district, for instance, the

price officially reported is Re. 1-8-0 per pound of 40 tolas; but I think the retail sale price actually charged is Rs. 2-8-0 per pound. There are at present no means to examine the accounts of the ganja-farmer. Had they been regularly kept, I am sure they would have shown a large profit to the farmer.

For all these reasons, I am respectfully of opinion that the system of officially fixing the retail sale price is at least worth experimenting upon.

64. The present regulations seem to be unobjectionable.

65. No charas smoking known in this part. Consumption of bhang comparatively small. Bhang is not separately taxed. The taxation, as compared with alcoholic and other intoxicants, seems moderate and fair. The quantity of the alcoholic stimulant required by an habitual moderate consumer costs about 5 annas per diem and that of opium 2 annas. Compared with these, the cost of these drugs required also by an habitual moderate consumer is much less, and must therefore be considered reasonable. This cost includes the contractor's profits, which seems to me unreasonably high. If, therefore, they are reduced to a fair minimum by officially fixing the price, as suggested in reply to question No. 66, the cost will be still reduced, and the taxation will be clearly seen as quite moderate.

66. The principle which governs or should govern the taxation of intoxicating drugs is, I think, that the State should, by the imposition of heavy taxes, endeavour to check, as far as practicable, the use of such drugs because they act injuriously on the body and mind of its subjects. According to this principle the intoxicant which has more mischievous effects by spoiling the body or mind or by creating a greater tendency to commit the crime should, I think, be more heavily taxed. Unless, therefore, the different varieties have different powers of so acting, they need not be taxed at different rates.

67. My views have already been expressed in reply to question No. 63. The retail sale price not being fixed officially, the consumer is practically required to pay a much higher tax in the shape of the price of ganja, though the tax imposed by Government is very moderate. The system, therefore, requires modification.

68. In the mufassal there are not such houses. I am of opinion that it is not desirable that there should be such houses.

69. Yes; generally they are. If a particular locality is objected to by the people, their complaint is sent to the local revenue officer for inquiry and report; and if, on receipt of such report, the Collector is satisfied that there are sufficient grounds not to allow the shop to be opened, no permission is granted.

70. No, there are no facts regarding the importation or smuggling of hemp drugs from Native States to which I wish to draw attention.

Yes; duty is paid in respect of all the hemp plant drugs used. So far as I am aware, there is no use of untaxed drugs.

Oral evidence.

Question 13.—My information regarding the export of hemp drugs to European countries was gathered from an Administration Report of the Abkari Department, which I can mention after reference to my notes.

Question 26.—In the districts I have served I have not found the hemp drugs to be used as a custom at religious ceremonies. I am a follower of the Shiva side of the Hindu religion, and I do not consider the use of the drugs essential.

Question 35.—The ascetics have not enough influence with any class of the people to cause political difficulty. They may have exercised influence in former days, but times have changed, and I only speak for my own part of the country. They have influence in religious matters, but not in political.

---

40. *Evidence of* Rao Saheb Narayan Waman Deobhankar, *Brahmin Mamlatdar and Magistrate, 2nd Class, Chopda, District Khandesh.*

1. I have been a Magistrate for the last fifteen years, and exercised jurisdiction in eleven talukas in five different districts. I have thus had opportunities of studying the habits of criminals in different parts of the Deccan as regards the use of the hemp drugs. I have also consulted some persons whose family have for several generations been dealers in these drugs.

51. I do not think that any sensible proportion of bad characters are habitual consumers of any of the hemp drugs; their proportion is certainly larger than that of habitual consumers in the general population of the country. I can only trace the connection of the moderate use of these drugs with crime in the following two ways:—

(*a*) Criminals as well as consumers of the hemp drugs are recruited from the lower ranks of society; (*b*) a moderate use of these drugs prevents fatigue and exhaustion, and imparts a certain spirit and boldness to the temper; it has a tendency to concentrate the mind to the one object or sentiment which is uppermost in the consumer's thoughts, and to fortify it to some degree against danger and difficulties.

I do not think that the use of hemp drugs by itself prompts a person to crime; they (the hemp drugs) are cheap enough to be within the reach of the poorest classes, and unlike opium they create no desire for sweet, greasy or other expensive food.

52. The above answer holds good *mutatis mutandis* in respect of this question; only that a habitual excessive consumer is less disposed for the activity and excitement of crime than a moderate consumer. Excessive use is observed to have the effect of increasing fretfulness, but decreasing physical powers.

53. Excessive indulgence in any of these drugs does not by itself incite to unpremeditated crime, violent or otherwise, unless such a crime happens to be uppermost in the consumer's thoughts, or unless he conceives an intention to commit such a crime subsequent to his taking any of these drugs, in which case the influence will tend to intensify and help on the intention so conceived. I do not know of any case in which excessive indulgence in any of these drugs has led to temporary homicidal frenzy.

54. These drugs are used by criminals to fortify themselves to commit a premeditated act of violence or other crime. I have observed one or two cases of this nature in the Chopda taluka during the last six months.

55. Criminals, in order to further their designs, do, in rare cases, induce their victims to partake of majum (a sweet preparation of bhang), and so stupefy themselves. Complete stupefaction cannot be induced by the hemp drug without admixture. I observed a case three years ago in the Nandgaon taluka of the Nasik district, in which a gosain administered majum to a person, and while the latter was in the drowziness of the drug, committed theft of some rupees he had in his turban.

---

41. *Evidence of* Rao Saheb Shesho Krisna Mudkavi, *Mamlatdar of Taluka Bijapur, Bijapur.*

1. I had no opportunity before of collecting the information I am now giving on this subject. Still I have attempted to answer the questions with the aid of statistics I have obtained from the ganja contractors, the Abkari inspectors, persons using bhang and ganja, and from my own scanty experience.

2. In this part of the country charas is not manufactured at all. The definition given of ganja is correct. The kind of ganja manufactured here is flat ganja, known by its generic term ganja, instead of champta ganja.

3. As far as I know from my experience in the Belgaum, Dharwar and Bijapur districts, hemp plant does not grow spontaneously in any of these districts.

7. In Bijapur town 6 acres and 13 gunthas were cultivated for bhang and ganja.

8. The cultivation is so infinitesimally small that it seems unnecessary to answer the question.

9. After the opening of the monsoon, ganja is sown at the end of June or beginning of July in plough land in the same manner as jawari. The plant needs no irrigation (artificial) during the monsoon, after which it is watered by means of "mote" (water bucket). From the month of September male plants begin to come up among crops, and they are at once removed, for their presence causes the female plants to seed and injures the crops. Grass or dirt among the ganja crops is weeded out from time to time.

10. Here there is no separate class of ganja cultivators. They belong to the agricultural class. But, in order that the female plants may not be injured from the growth of male plants, experts are imported from other districts, and the cultivation is managed under their supervision.

11. The plants cultivated for the production of ganja are not raised from the seed of wild hemp.

12. Wild hemp is not sown.

13. The cultivation of ganja is not restricted to any part of the country. Moisture and a supply of water are essential conditions, but rocky soil is unsuitable.

14. In this part of the country ganja is cultivated to a small extent. Bhang is also prepared from it. Charas is, however, not prepared. The cultivation in Bijapur of bhang and ganja this year will, it is estimated, produce about 60 maunds of ganja and 15 maunds of bhang.

15. In this part of the country ganja is not produced from the wild plants, which do not exist here at all.

(A) Ganja used for smoking purposes. About the end of December, when the crop of ganja is ready, the tops of the plant, otherwise called the buds, are pulled out. These are placed in a pile four inches thick. It is then spread out on the ground and trodden under foot by coolies for three or four days, and then the ganja thus prepared is filled into bags. The ganja thus prepared becomes ready for sale. The people purchasing the ganja so prepared, if they wish to use any portion of it for smoking, squeeze it with their hands mixed with water, which is then thrown out and water mixed afresh. This process is repeated ten times at least. The ganja thus prepared, though fit for smoking, is not so used without a mixture of tobacco.

(B) No ganja is eaten in this part of the country.

(C) The powder left after the process of treading, to which the buds placed in heaps are subjected, and from which the ganja is separated, is called bhang. That powder is sold to consumers using it for drinking. To render it fit for drinking purposes the consumers soak it in water. It is then rubbed with hands and cleansed with water, the process being repeated so often as to cause its green colour almost to disappear. The bhang so prepared is then fried on a pan mixed with ghi. It is then mixed with water, poppy seeds, almonds, cardamoms, ginger, pepper and aniseed, and grounded on a stone and rolled into balls. Then a tinned pot or an earthen pot with a broad mouth is taken, and its mouth closed with a piece of cloth tied round it. On the cloth is then placed one of these balls, about four or five tolas in weight; water is then poured down on the ball in small droppings, and the ball is then dissolved with hands. The proportion of water to be put in is 80 tolas for each ball. When the dilution thus prepared is ready, the cloth is removed and sugar or gule mixed with the dilution. Afterwards two receptacles are used. The one (empty) is placed on the ground, and the other containing the dilution is held over it at some distance, which is gradually increased to the height of a man; and the dilution is then dribbled down into the empty receptacle. When the pouring is finished, the process is repeated as often as is necessary to produce that amount of intoxicating power in the dilution which the drinker wishes it to possess, a repetition forty times being considered as a maximum. The mixture thus obtained is termed ghota. It then becomes fit for drinking. During the hot season, this is used without anything else being mixed with it. In other seasons milk is mixed with it.

16. Smokers prepare the ganja they buy for smoking. Ghota-drinkers prepare ghota in their houses from the bhang they purchase. These smokers or drinkers are ascetics, bairagis, salis, koshtis, Marathas, and Musalmans.

17. There is no limitation as to the class or caste of the persons making the preparations of the hemp drug. The ganja cultivators therefore belong to the agricultural class, and they make the

preparations themselves with the aid of experienced persons.

18. I have no personal knowledge on this subject. I consider two years to be the longest time beyond which the drugs cannot keep good. Its keeping in good condition or deterioration depends upon the climate, according as it is dry or wet. I have no experience of the causes of deterioration, neither can I think of any means to prevent such deterioration.

19. In this part of the country ganja is used only for smoking.

20. Ascetics, bairagis, salis, koshtis, Musalmans, and occasionally singers chiefly smoke ganja. Their proportion to the general population cannot be stated in exact percentage, but approximately it may be estimated at 1 to 2 per cent.

21. In this part of the country, flat ganja only is used for smoking, and it is considered the best of all.

22. Charas is not at all prepared in this part of the country.

23. Bhang is not used for smoking.

24. People of the ordinary class drink bhang. Detailed information on this point is given in the answer to the 17th question. On the whole the proportion of this class of people is not greater than 5 per cent.

25. That the use of ganja is on the increase is evident from the fact that the ganja-revenue is increasing every year.

26. It is very difficult to ascertain the proportion of these classes to the total consumers indicated in the respective headings, but the following seems a fairly reasonable estimate :—

(*a*) 50 per cent.
(*b*) 10 per cent.
(*c*) 25 per cent.
(*d*) 15 per cent.

27. It has already been stated in the answer to the 17th question what people use this drug. The (*a*) class mentioned above generally comprises weavers and momins; the (*b*), ascetics, bairagis and fakirs; and the (*c*) and (*d*) the ordinary classes who are occasional consumers. It is the idle classes of people that take to this vice contracted by association with bad company, and generally poorer classes are addicted to this. The (*a*) class uses this drug to alleviate fatigue in such moderate quantity as to cause no obstacle to their daily avocations.

28. The habitual moderate smokers of ganja require from one to two tolas per head per diem, while habitual excessive consumers require about four tolas per diem. Its cost is half anna per tola.

29. Occasionally dhatura seed, kuchara (nuxvomica) seed and bachnak (aconite) are mixed with the ganja used for smoking, to make it more intoxicating. Common tobacco is ordinarily mixed with it as an essential ingredient. I have not been able to ascertain what other ingredients, if any, are mixed with it. It is usual to mix spices in bhang (ghota), the process of which has been described in the answer to the 15th question.

30. It seems necessary to specify here the classes consuming the drug in solitude and those consuming it in company. Ascetics and bairagis wishing to secure concentration of mind to devotion and those wishing to keep their vice out of knowledge to others use the drug in solitude. These classes do not generally associate with society. Labouring classes, who have ordinarily to come into contact with their fellow-labourers, use it in company to a moderate extent; and some of them use it also in solitude in their own houses to an extent sufficient to satisfy their cravings. The proportion of consumers in solitude is very small. The consumption is mainly confined to male sex. Females generally do not smoke it. The addiction occurs at an age later than eighteen.

31. Those, who have no association with consumers of the drug and those who are educated in moral and religious subjects, never become prone to this habit. Several others, too, contract this habit by association with consumers of the drug. It is very difficult to break off. Except in the case of ascetics and bairagis and fakirs, there is no tendency in this drug for the moderate habit to develop into the excessive.

32. There is no custom at all, social or religious, in regard to the consumption of any intoxicating drugs, like bhang, ganja, etc. On the contrary, their use is forbidden by religion. A consumer of such drugs is hated by respectable men, and so there is no religious or social binding to use the drug. In the case, however, of ascetics and bairagis it is regarded as a necessity for concentration of mind in contemplation or devotion; but there is no authority of the shastra for such sentiment.

33. The public opinion (social and religious) is against the use of the drug. Consumers who in their intoxicated state are intemperate in their conduct and speech are shunned by respectable societies. The addicted are sensible of their vice, and generally avoid appearance in public, while such societies avoid company with the consumers for fear of contracting their habits. There is no custom either among the Hindus or the Muhammadans of worshipping the hemp plant.

34. It would be a serious privation to many classes of consumers to forego the consumption of the drug. For a few days there will be an obstacle to their mental or physical action. Just as the health of any ordinary man will suffer if he is not given his daily food, so will that of the bhang-consumer do if he is deprived of the use of this drug. But the abandoning of this habit will be beneficial to him in the end. The sufferance that might be caused in consequence is only a temporary one. After the lapse of some days in self-denial the practice leads to the cessation of the former habits, and the consumer's mental and physical powers would be maintained, The proportion of the people, who have once contracted the habit and who subsequently leave it, can hardly be 1 per cent. of the total consumers.

35. It is very necessary to prohibit the use of these drugs. The prohibition will lead to illicit consumption. The only way to enforce the prohibition seems to me to prevent by law the cultivation of these drugs in British and even in foreign territories, a severe penalty being attached to the breach of this rule. The police and the abkari departments should keep watch. Informers of illicit cultivation should be rewarded, and the trials of such cases should rest with lower grades of magistrates. The prohibition would, for some time, occasion temporary discontent among the consumers; but there is not the least ground for apprehending that such discontent would amount to a political danger, the people in this part of the country being loyal and of mild nature, and the proportion of the persons using bhang and ganja to the general population being too small to be taken into consideration. It cannot even for a moment be supposed that a measure affecting only

such community would lead to political danger. The increasing practice being detrimental to the public health, it is the duty of the good-principled ruler to stop it. Although the vice of indulging in bhang and ganja and that of drinking liquor have no connection with each other, the prohibition is likely to lead some of them to have recourse to opium and others to alcoholic stimulants.

36. For the present there is no practice come to notice of alcohol being substituted for these drugs.

N. B.—The answers to the questions in the 5th chapter apply both to bhang and ganja.

37. Charas is not used in this part of the country.

38 and 39. Both the smoking of ganja and the drinking of bhang (ghota) produce intoxication. The smoking produces heat in the body. It increases appetite and is likely to affect injuriously the consumer's brain and blood if he is not given sufficient food to eat. It is also likely to bring on asthma and cause disorder of lungs. Such are not the effects of the ghota, the use of which keeps intoxication longer than in the case of the ganja-smoking. It also sustains consumer's power of working. A ghota has a cooling effect in the end. It does not tend to increase appetite, nor is it so injurious to health. If consumed in a moderate quantity, it has these advantages. But ordinarily moderation is not observed, and its immoderate use is therefore injurious.

40. Purified bhang and ganja are used for medical purposes. Purified bhang and ganja are mixed in certain proportion with some of the medicines prescribed for cough, high breathing, piles and other diseases. It is also mixed with some medicines prescribed for certain cattle diseases. But it is not to be supposed that there are other cures for the diseases mentioned above.

41. It is known from experienced people that moderate consumption of these drugs have the effects mentioned in (*a*), (*b*), and (*c*). Their use serves to secure concentration of mind to any subject.

(*a*) On rare occasions it is useful to invalids.

(*b*) As already stated in the answer to the 17th question, it is used by weavers and others for this purpose.

(*c*) It is useful to ascetics, bairagis and others going on pilgrimages and travelling in hot or cold countries with or without clothes on.

(*d*) Persons leading their life as devotees.

It is difficult to state the proportion. The above information relates to the habitual moderate consumers.

42. It does not seem necessary to answer this question in view of the answer given to the preceding question.

43. Intoxication from bhang and ganja is pleasing to consumers in their sedentary position, and they are therefore inoffensive to their neighbours.

44 to 46. Reliable information is not obtainable to give satisfactory answers to these questions.

47 to 52. I am not aware of any instances of this nature.

53. Excessive indulgence in this drug causes quietude in a consumer and deprives him of the power of excitement. Therefore there is no incitement in the consumer to any violent or other crimes. I known of no case in which it has led to temporary homicidal frenzy. The state of the man, even when he is under complete influence of the drug, is not such as to incite him to commit suicide.

54. No.

55. The smoking of ganja does not bring on insensibility, but only slight intoxication. I am not aware of any instances of the nature indicated in the question. Insensibility is not produced without a mixture of any other substance with this drug. Dhatura seed, kuchara or other substance is necessary to produce perfect insensibility.

56. Dhatura is not mixed with this drug in order to induce consumption. I have not been able to obtain information on the other points.

57. Ganja is not eaten in this part of the country. Bhang (ghota) is drunk. This and the effects of its use have already been mentioned above. Charas is not prepared in this part of the country.

58 and 59. The existing rules relating to bhang and ganja should have a provision of an enactment prohibiting the cultivation of ganja. Should this be found inexpedient, such duty should be imposed on ganja as would make it a costly article. To attain this object, a rule should be made requiring the storage of bhang and ganja in a place assigned for the purpose, and the duty due to Government should be paid by the contractors.

The shops, where the sales of bhang and ganja are considerable, should be sold by auction, and those where the sales are not large should be farmed as at present for a lump sum.

The existing rule permitting the sale of ganja not exceeding forty tolas per diem per head enables a purchaser to dispose of a portion of it to another. If such a transaction be declared illegal, it would check the increase of the vice. To attain this end, the limit of forty tolas should be reduced to four tolas, the maximum quantity needed per head as shown in the answer to question 28. More than this should not be allowed to be sold to one person. If this course be adopted, the vice would materially decrease.

60. The cultivation of the ganja-bearing plant does not require supervision, but it seems desirable that the process of the preparation of ganja and bhang should be subjected to supervision; ganja is not capable of being prepared secretly. The present supervision seems therefore sufficient.

61. Charas is not produced in this part of the country.

62. Ganja and bhang are products of the same plant. To prepare a good ganja it is necessary that the plant should not be allowed to reach maturity. Bhang requires a mature plant. When ganja is produced from immature plants, bhang turns out bad, and when bhang is made from mature plants ganja does not turn out good. Therefore a farmer should take precautions to manufacture good ganja from immature plants, and should reserve plants in an allotted area for preparation of good bhang. A rule should be so made that a farmer may not be able to obtain that advantage for the bad stuff which he can get for the good one.

63. There seems no need of any charge in the existing system relating to the wholesale vend of ganja and bhang. As regards the retail vend the farmers attempt to extort from purchasers any rate they like. This is hard on the purchasers. Therefore, the farmers should be bound, as in the case of opium contracts, to sell at such rates as may be prescribed by the Collector or other officer authoriz-

ed by him in this behalf, regard being had to the duty paid by the farmer and the cost of the drugs.

64 to 66. This has been explained in the answer to the questions 58 and 59. There seems no objection to a same rate of taxation being imposed on bhang and ganja.

67. The imposition of a high duty as suggested in the answer to question 59 would relieve poorer classes from this vice, as their means generally would not enable them to purchase the drug at the proposed rate. It is, however, true that persons who can afford that rate would buy, but the number of such persons is very small; but, all things considered, the number of consumers would decrease.

68. The number of persons openly drinking on the premises of licensed shops is very small; there is a suggestion on the part of respectable classes that the consumption on the premises should not be allowed as tending to multiply the number addicted to this vice, and causing annoyance to the general public; but as the use of ganja and bhang is prejudicial to the health of the consumers, it seems to me desirable that special measures should be adopted to check the spread of the vice and gradually reduce the number of consumers. As observed in the answer to question 67 the imposition of a duty would lessen the number of the poorer classes of consumers and confine its purchase to persons of means. My opinion therefore on this part of the subject is that a rule should be made providing that persons wishing to purchase bhang or prepare ghota should consume the stuff on the premises of the shops. This measure will deter persons whose means permit them to indulge in this drug from resorting to the shops for consuming the drug there on the premises, as to do so will be felt by them as a very disgraceful act. Thus the number of persons resorting to the shops will be considerably reduced. I therefore consider that the rule requiring consumption on the premises should be passed.

69. Whenever a shop is desired in any village for the sale of this drug, the farmer first makes an application. The wishes of the villagers are then consulted; and on consideration of the extent of consumption of bhang and ganja in that village, the shop is allowed if the villagers wished it, and there is no objection on other grounds. I see no necessity for a change in this system.

70. Instances of smuggling of such drugs from Native States are not detected. There is, however, a considerable cultivation of ganja in Native States, and it is sold there at cheaper rates. There is therefore reason to believe that persons addicted to this drug and residing in British villages on the frontier are in the habit of illicitly importing ganja into British territory.

42. *Evidence of* Rao Saheb Vithal Raghunath Danji, *Mamlatdar and Magistrate, 2nd class, Vengurla, Ratnagiri.*

51. Generally speaking, only a few bad characters are to be found amongst those who consume these drugs (excepting charas, which is not known in this district) on a moderate scale. It is to be observed that these consumers on a moderate scale have connection with gambling and ordinarily not with any other crime.

52. There are but very few such kind of consumers here, and of them a larger proportion (than that of moderate consumers) are bad characters, and take to gambling, petty thieving, petty violence and immoral acts.

53. Excessive indulgence in any of these drugs is generally believed to incite to such crime, though such a case has not crossed my experience. There was not a case of this kind in my own court or in any office I served. But I have read High Court decisions (Indian Law Report, Vol. XIV, page 564) in which the accused was addicted to smoking for two years and thereby two murders, one of his wife and the other of his child, were committed by him. Therefore I think that the using of hemp drugs spoils the head and induces the frenzy alluded to.

54. There was not a case in my court in which a criminal had fortified himself by the use of these drugs to commit a crime. But I have known instances in which people wishing to be rough or violent in religious assemblies or processions fortified themselves in the manner indicated by the question.

55. A case of the kind meant by the question has not come within my personal experience as a Karkun or as a Magistrate. Excessive use of ganja or bhang alone is known to induce complete stupefaction for a stated period; but with admixture of dhatura or such other drugs, the stupefying intoxication is more easily reached in practice. As mentioned above, the use of charas is not known in this district.

43. *Evidence of* Rao Sahib L. M. Deshpande, *Brahmin, Mamlatdar and Magistrate, 1st Class, Poona City.*

7. *Cultivation.*—In this district hemp plant is cultivated for ganja and bhang. Wild plant is not known. The extent of cultivation at present is about 10 acres only, and the figures for the last ten years have varied every year and ranged between 30 and 10 acres. The outturn has been on an average only 180 maunds, which is very trifling.

14. *Manufacture.*—Ganja alone is manufactured from the plant, neither charas nor bhang in the sense in which it is understood in Upper India. The dried flowering tops are called ganja, and the bits of leaves and the fragments detached from the flowering tops while being trodden under foot are called bhang. Charas is seldom used in this district. Majum, yakuti, and gulkand and shrikand are the confections prepared from the ganja.

19. *Uses.*—The drugs are used sometimes medicinally, but more frequently for smoking and eating. Ganja is smoked, and bhang is used for making a cooling and refreshing beverage called ghota. The other sweetmeats are eaten by habitual consumers.

20. *Consumers.*—The consumption is not confined to any particular class. Almost all classes use the drug, but chiefly the gosavis, sadhus, fakirs, hakims, and all men of mendicant class going on a

pilgrimage from place to place, as the use of the drug is said to help them to take long journey and to deaden the pain of suffering and starvation in their tours. The use of bhang and of the sweet confections from the ganja is not very extensive, as would appear from the following proportions which have been arrived at from an inspection of the accounts of the vendors of the drugs. In every hundred consumers of the drugs there are about 90·4 ganja smokers, 2·4 majum eaters, 1·9 yakooti eaters, and the same proportion for shrikhand and gulkand eaters, and about 1·5 drink bhang (ghota). The number of men using the drugs cannot be precisely given, as no reliable statistics are available, but regard being had to the average daily allowance of ganja required by a habitual moderate consumer, and the quantity of ganja sold annually in the district, the figure might be put down at 2,800 for the district. This will give us about 2,520 men as ganja smokers, about 56 yakuti eaters, and about 28 for each of the other confections and bhang. In every thousand of population of the district there are not more than 2·6 men who use hemp narcotics. This will show that the use of the eatables and bhang is so limited, that it is not possible to arrive at any conclusion regarding them as causes of crime and violence. The number of ganja smokers, though comparatively very large, is entirely insignificant when compared with the population of the district.

28. The daily allowance of ganja per head is one and two tolas, and that of bhang three and six masas for habitual moderate and excessive consumers respectively.

40. *Effects.*—The effects of the use of ganja for medical purposes are stated to be good. Ganja excites hunger and gives some tone to the nervous system. But we are not so much concerned with the medicinal effects as with the effects of the habitual use of the drug.

44. The first effects are not always bad. The first dose is refreshing. It produces exhilaration of spirits, a merry mood and a pleasant sensation. The man seems to enjoy the intoxication, and no harm comes to him from such occasional use. But the fact is otherwise with a habitual consumer. At times he is wild, garrulous, and incoherent, and the excitement over he is disposed to sleep. There is the depression of spirit, a broken-down constitution, loss of appetite, derangement of the alimentary canal, and generally an anæmic appearance so characteristic of the habitual consumer of ganja.

45. The occasional use of ganja in moderate quantity is said to be conducive to health. It acts as stimulant and engenders activities and is generally held to be beneficial to health, although when taken in excess or continued as a habit it has a very prejudicial effect on health and mental faculty. I have consulted a few of my friends in the medical profession, and they are all unanimous in condemning the habitual use of ganja, as being essentially deleterious to the health.

46. In habitual excessive consumers all the symptoms are greatly aggravated, and in addition there is the deterioration of the mental faculties. There is loss of memory, numbness and want of power and control over the nervous system, and helpless condition and complete depression and inactivity. In such cases the abuse of ganja leads undoubtedly to insanity of a serious character, but much oftener to a harmless idiotcy.

51. Bad characters generally do indulge in some kind of intoxication, but to a small extent in hemp drugs intoxication. Those who use the drugs are habitual moderate consumers, but very seldom excessive consumers. The habitual moderate consumers are not hardly turbulent. They are mostly quiet, and are not given up to any tumultuous act. An occasional excessive consumer may, as I have noted above, be very violent, and do some iniquitous acts, mostly aimless and unpremeditated. I know of no case in which ganja has ever been shown to be an incentive to crime.

52. The habitual excessive consumer is hardly ever capable of committing violent acts. Excessive smokers are ordinarily very quiet with a tendency to imbecility. The effect of an excessive habitual dose is to stupefy rather than to excite.

Intoxication has never been a national vice in India, although within about a quarter of the century it has been resorted to to some extent. Drunkenness has been widely prevailing, but hemp drug intoxication is very rare. It is within our daily experience that much crime is committed under the influence of drunkenness. The facilities are so great that the men of lowclasses, especially the Mahurs, Mangs and Kolis, all resort to the liquor shop and drink unreservedly. As a rule they are never satisfied with moderate drinking. They will drink to excess, as they regard the pronounced feeling of intoxication as an adequate return for the money spent on the liquor. In such a state of intoxication they commit crime or other iniquitous acts which render them amenable to the law. Drunkenness as the cause of crime has been well recognized in the fact that a section has been enacted in the Bombay Act IV of 1890, making it penal for a man to be drunk and be disorderly in a public street. Moreover, all cases under section 510 of the Indian Penal Code that have come up for disposal were all with reference to intoxication due to alcoholism, never to any other kind of intoxicants.

53. Excessive indulgence, as I have said above, at times leads to unpremeditated acts of violence when reason is overpowered, and equilibrium of mind is disturbed. I do not know of any case in which it has led to homicidal frenzy.

I have served in five out of six districts of the Central Division and exercised first class magisterial powers for over ten years. During this period I have not come across a single case in which crime was committed under intoxication by the use of any of the narcotic drugs.

54. I think the drugs might be used occasionally in moderate quantity by bad lives to fortify themselves to commit an iniquitous act. Criminals when they premeditate a crime may use ganja as they do alcoholic drinks to a large extent to nerve and prepare themselves for the occasion; but I have not come across a single case in which intoxication of ganja has been pleaded as an excuse for crime or other violent act.

55. I think they do so occasionally. I had a case before me in which it was alleged by the complainant that she was ravished while in a state of intoxication brought on by administering to her majum, a confection prepared from the hemp plant. Ganja-smoking is hardly used for such purposes. I do not think that a complete stupefaction may be produced by the use of an excessive dose without admixture, but I understand dhatura is more frequently resorted to for this purpose than the hemp plant drug.

59. I do not think a case is made out for the adoption of a legislative measure to restrict the use of any of the hemp drugs; as in no case it has been shown that use or abuse of the drugs incites to crime either violent or premeditated.

44. *Evidence of* Rao Sahib Krishnaji Ballal Deval, *Chitpavan, Brahmin, Mamlatdar and Magistrate, 1st Class, Chiplon.*

1. I have been serving in the Revenue Department for the last twenty-one years. I have been serving as Mamlatdar and Magistrate, first class, for the last twelve years. I have served in five districts, *viz.*, Belgaum, Dharwar, Bijapur, Canara, and Ratnagiri. In my official capacity I have had many opportunities of observing the general conduct of ganja consumers. I have had to exercise some control over the retail shops. Some cases of smuggling have been tried by me.

2. Yes. Round and flat ganja is locally known as ganja che boot, *i.e.*, ganja buds.

13. Mere cultivation of the hemp plant is not restricted by law. The High Court of Bombay have also held so. (*Vide* Criminal Rulings No. 82 of 15th November of 1888, Imperatrix *vs.* Dada bin Apaji.) Though not restricted, the plant is not grown by the people in the five districts in which I have served.

18. From the enquiries I have made with the retail vendor, I state that if ganja or bhang is kept for more than one year, it is deteriorated and becomes unfit for use. In the districts below Ghats, deterioration commences sooner and begins to set in after six months form the date of import.

20. Charas is seldom used in the districts in which I have served. Only ganja is used for smoking purposes here.

Bairagis, fakirs (travelling mendicants), night-mongers, dramatic company, and tamasha dancers as a class do smoke ganja. In Chiplon taluka, and especially in the town of Guhagar, a considerable number of Brahmins do smoke as a rule; but in the districts of Belgaum, Bijapur, Dharwar, and Canara Brahmins do not smoke. Generally speaking, idle folks of all classes do smoke and drink ganja and bhang in special places where they assemble to chit-chat.

The population of this taluka is 185,000; out of this about 80,000 are women and about 25,000 are children, and the number of adult males amounts to 80,000 nearly. It is also to be noted here that though the proportion of the persons consuming these stuffs with the whole population is 2 per cent., yet it must be borne in mind that the proportion is 5 per cent. with the male population; and as each of these consumers is an adult male member or a headman of his family, if he goes astray, the prospects of the whole family are sure to be marred.

21. Round ganja is generally preferred for smoking.

23. Bhang or dry leaves of the hemp plant are seldom imported and used for smoking.

24. In the districts in which I have served, people do not eat or drink bhang. This practice prevails in the districts of Northern India, such as Malwa, Benares, etc.

25. The licensed vendor in this taluka has been vending these stuffs, ganja and bhang, for the last twenty-five years; and he states that the use of this stuff is highly on the increase, but no minimum or maximum rate for selling these stuffs is fixed; the vendor sells as he likes. The evidence is conflicting on this point, because, though there is a gradual decrease in the annual amount of auction sale, yet the quantity of these stuffs imported by the shop-keeper, and the fixed duty, is slightly on the increase. It is also to be noted here that the habitual moderate ganja-consumers bring good ganja from other districts and keep in their possession such quantity as is allowed by law.

26. As far as I know, the consumers of ganja whom I have mentioned generally come under head (*a*) habitual moderate consumers, and their number according to the vendor's statements and other enquiries made lies between 3,000 and 4,000.

27. Please for the first part of this question see answer to question 20.

Bairagis, fakirs, and other travelling mendicants have no established houses. They travel from village to village, and district to district, with their families and children. The elders consume these stuffs, and the youngers follow their example. When the elders die, the youngers become elders, and their sons in their turn follow their example, and so on. In other classes, the practice is obtained thus:—In a village there is generally a common place, such as temples, etc. Bad characters generally assemble there to chit-chat in the morning and in the evening. When idle talks on some topics begin, some one of these men gently introduces a smoking pipe called chillum. Strangers who are not accustomed are gently pressed to partake of this stuff. This stuff being an intoxicating drug naturally induces the beginners to smoke, and in this way the habit is contracted.

28. The average allowance of ganja per diem is about $\frac{1}{4}$ of a tota, and its cost is about $\frac{3}{4}$ of a pie to habitual moderate consumers. Other stuffs are seldom used here.

30. The consumption of these drugs is practised in company. It is generally confined to the male sex to any time of life except childhood. Children are not the consumers of these drugs.

31. Non-consumers form the habit of consuming these drugs in company with the consumers. It is not too difficult to break off. For I have actually induced two of my servants to give up the habit of ganja-smoking, and I have succeeded. I have also succeeded in two or three other cases regarding some of my friends.

33. The consumption of these drugs is regarded as a degrading and ruinous vice. The habit of consuming these drugs leads to physical and mental deterioration. It undermines the structure of the society. Its effects are deleterious to the health, wealth, and knowledge. The consumers of these drugs are, to the best of my knowledge and experience, rather troublesome to their family members and neighbours. They become indolent, and they also become deficient in self-control and intellect. Hence the public opinion is bad.

34. Certainly not. As ganja smokers are generally bad characters and indolent section of the village community, *viz.*, night-mongers, bairagis, fakirs, etc., it would not be a serious privation if the consumption is foregone. On the contrary, it will be a help to society in general; because the stuff is admittedly an intoxicating drug, and is deleterious to the health and intellect. It induces indolent habits.

35. In the five districts in which I have served, it would be, in my opinion, feasible to prohibit the use of these drugs; because the habit is principally found among bad characters and travelling mendi-

cants, who are indolent and troublesome to the community ingeneral. Consumers are looked down by the gentry; and if under these circumstance "growing of the hemp plant as well as the importation of the drug" be prohibited by law, the habit of consuming these drugs of the consumers will be gradually checked, and in a few years it will disappear. For some time habitual consumers will no doubt continue to consume the drug illicitly; but once the growing of the hemp plant and importation of the drug is prohibited by law, the illicit consumption will soon disappear, and the people will turn their attention to peaceful avocations of agriculure. Under the circumstances stated above, the prohibition would not occasion serious discontent among the consumers. The prohibition will not, in my opinion, encourage the use of alcoholic stimulants or other intoxicating drugs. However, as I have advocated the prohibition of the use of ganja for reasons recorded, I beg also to propose for good reasons to check by further restrictions the use of alcoholic drinks. If high authorities in Europe, like John Bright and others, are to be believed, then the best drink that a man can have is potable water. Alcoholic drinks are producing mischief in Europe. The main factors of the Indian population consist chiefly of Hindus and Muhammadans. Alcoholic drinks have been strictly prohibited by Hindu as well as by Muhammadan religion. Alcohol was not so widely used in former days as in the present days. The population is inceasing year by year. The great question before Nation and Government is how to utilize the existing lands, and to grow more corn therein for the maintenance of people; therefore the sooner we take precautionary measures to check the use of intoxicating drugs as well as intoxicating drinks in India the better. I should like to propose that *only* one shop of country liquor and one shop of intoxicating drugs in each taluka is quite sufficient. No passes should be given to open temporary shops in fairs and jatras. These and similar other measures will prevent the spread of bad habits, and the people will turn their attention to peaceful avocations of agriculture.

The land at present used for growing intoxicating poppy plants, etc., will be utilized in growing corn and cotton, the scarcity of which is feeling year by year. Cocoanut trees are now used for drawing toddy, and thus the people are deprived of delicious food of kernel and its edible oil.

The more shops we open the more customers we get. Of late, the tendency to open more shops is checked by departmental orders; still I would advocate that only one shop in each taluka is sufficient.

36. There is no reason to believe that alcohol is now being to a certain extent substituted for any of these drugs. But the more and more use of alcoholic stimulants year by year is attributable to other causes, which need not be enumerated here.

43. The consumers of ganja are generally troublesome, not only to their neighbours but to their friends and family members also.

44. It is not really refreshing. Though habitual moderate use does not produce intoxication, yet its effects on the consumer's constitution and behaviour are unwholesome and bad; because I have observed this in each ganja consumer's case whenever he came in contact with me, either as a witness in my court or as a friend in society.

51. In my opinion if hundred bad characters are collected together, you will find seventy-five out of them to be habitual moderate consumers of any of these drugs. There is no connection between the moderate use of these drugs and the grave crimes coming under the Indian Penal Code; but crimes of giving abuses and assaults, etc., are, in my opinion, committed by ganja consumers when under its influence.

53 and 54. No such case has come before me.

55. I do not know of any such case.

58. The administration is working well.

68. There is only one shop in Chiplon taluka licensed for retail sale of these drugs.

69. At present no local opinion is considered before a shop is opened; but I propose that no new shops should be opened unless applied for by the people in an application signed by them.

70. There is no general use of ganja which is illegally imported or on which duty is not paid. During the course of twelve years, I have tried only three or four cases of smuggling; but the control over illegal importation as at present exercised by the Excise Department and the Police and the Magistrates is, in my opinion, quite sufficient.

Oral evidence.

Question 35.—By bad characters I mean those entered on the police list of persons tried and sentenced. As a mamlatdar I visit the temples and other places where people smoke and see them smoking. I should say that seventy-five out of every hundred of bad characters smoke. It is part of my duty to observe the habits of these men and of all troublesome persons. I have other unofficial means of finding out their habits apart from what appears in Court. I have served in all the districts of the Southern Division.

Alcoholic stimulants are too dear to be much used. I do not think the people would take to such drugs as dhatura, which would at once kill a man. It is never used at present for intoxication so far as I know. I hear that it is used sometimes in the northern parts of the country, but not where I serve. I have never asked sadhus and bairagis about this. Perhaps people must take to opium. I believe prohibition would reduce consumption. I have succeeded in getting two of my servants and two peons to give up ganja. I am not connected with any Temperance Society, but as a conservative and orthodox Hindu I am against all drugs and intoxicants.

Question 44.—I have certain friends who consume to excess, though they began moderately. Gradually they became unable to manage their affairs. The habitual moderate use is bad, as that leads to the habitual excessive use; and this tends to make a man useless to society. It is the same with alcohol.

Question 70.—Ganja buds are smuggled from Mysore. All the cases I refer to here were of this character. In all the cases (but one) I found that Mysore was the place; in the other I did not find out. They were all cases of import (or transport) without license.

45. *Evidence of* Rao Sahib Ramchandra Narayan Joglekar, *Brahmin, Mamlatdar and First Class Magistrate, on special duty, Satara.*

51. The consumers of ganja are mostly persons who have no position in life, but they do not necessarily happen to be bad characters as such. Bad characters seldom use bhang, ghota or charas. The moderate use of any of these drugs has no connection with crime in general or with crime of any special character.

52. Excessive use of ganja leads to irritation on account of trifling matters and sometimes to quarrels resulting in breach of public peace. It has no connection with any other crime.

53. Excessive indulgence in ganja incites to unpremeditated breach of public peace as above stated. I know of no case in which it has led to temporary homicidal frenzy.

54 and 55. No.

---

46. *Evidence of* Balkrishna Narayan Vaidya, *Parbhu, State Karbhari of Sangli.*

1. I was a mamlatdar in the British districts, and have been Karbhari of Sangli for seven years. In my official capacities I have often come in contact with the cultivators of hemp, from whom I have obtained some knowledge about the cultivation and manufacture of these drugs.

2. The definitions of bhang, charas, and ganja are correct, so far as the Sangli State is concerned, and the drugs prepared out of hemp go by the above names.

3. I have no knowledge of the district in which the hemp plant grows spontaneously.

4 to 6. Not known.

7. The cultivation of the hemp plant is carried on in the following six villages in the Sangli State to the following extent for production of ganja :—

Taluka Miraj-Prant.

Village.	Extent in acres.
1. Andhali	25
2. Bambawadi	2
3. Dudhondi	1½
4. Sirgaon	4½
Taluka Kuchi.	
5. Manjardi	6
6. Gourgaon	5
Total	44

8. Twelve years ago there was no land in the State under hemp cultivation. There has been a gradual increase in the cultivation of hemp, and it is due to the little cost and labour required in rearing the crops as well as to the good price they fetch in the market.

9. The following is the mode of cultivating hemp in the Sangli State :—

The ground is, in the first instance, well ploughed and harrowed. The manure is then carefully and evenly spread. The season of sowing the hemp seed in this part of the country is towards the end of June. The seed is obtained from Ahmednagar by cultivators at the rate of about 2 lb per rupee. It is sown with a tipan (drill plough) which has three poles for dropping grain. The two extreme holes in the tipan (drill plough) are closed, and the seed is dropped into the furrow through the remaining third hole in the middle. The quantity of seed required is about 14 lb per acre. In four or five days after sowing they shoot up. During the early growth of the plants, the ground is kept clean from all weeds. When they grow to the height of about 4 inches, they are required to be thinned, so as to be four or five inches apart from one another. The effect of this is that they are exposed more freely to light, heat and air, which promote a fuller development and vigour of the plant. When the plants attain the height of about one cubit, the male plants, which bear only seed, are extirpated, leaving only female plants to grow. It is not done by every cultivator, as it requires a great deal of insight to distinguish between the male and female plants. The well-initiated alone do this work. This process continues weekly till all the male plants disappeared from the ground. Until the crop has attained a good height, the ground is required to be kept free from all rank vegetation. During the season of the rapid growth of the plants they necessarily require moisture, and therefore, when the rainfall is scanty in any year, they are watered. When full grown, the plants attain the height of from 6 to 8 feet.

10. Those who cultivate hemp for its narcotic properties are of the same class as other agricultural cultivators. They do not form a special class.

11. No; never.

12. Not known.

13. The cultivation of the hemp plant is carried on only in two talukas of the State, as mentioned in answer No. 7. The above villages have taken to hemp cultivation on seeing the villagers of Lengre, a village in the Khanapur taluka of the Satara Collectorate, known for extensive cultivation of this plant, derive large profits therefrom.

The hemp plant is grown chiefly on high lands. The plant seems to flourish best in warm climate and black soil. Rainfall must be moderate. In the Shahapur taluka of this State the cultivation of hemp would be in my opinion an impossibility on account of excessive rain, red soil, and humidity in climate.

14. In this State ganja is produced from the hemp plant in the following six villages to the following extent :—

Taluka Miraj-Prant.

Village.	Yield in Khandis.*
(1) Andhali	25
(2) Bambawadi	2
(3) Dudhondi	1½
(4) Sirgaon	4½
Taluka Kuchi.	
(5) Manjardi	6
(6) Gourgaon	5
Total	44

* 80 tolas—1 seer. 13 seers—1 maund, 20 maunds—1 khandi.

15. In this State only ganja is prepared from the hemp plant. It is prepared in the following manner:—

The hemp plants bear flowers in five months. When the flowers are fully developed, they become brown, and are then plucked by hand from the plants, and are piled and dried on an open raised ground. They are then pressed and trampled under foot for three or four days. When they become dry, they are winnowed, and the substance which remains after winnowing is called ganja.

Ganja is used in this State chiefly for the purpose of smoking. It is occasionally eaten with meat or sweetmeats and drunk in milk or water after being well pounded. The yield of ganja per acre is about one khandi. The cost of producing one khandi of ganja is about Rs. 30—35, and it is sold at about Rs. 50—55 per khandi.

16. Not known.

17. Ganja is prepared in this State by any agricultural cultivator. The preparation is not restricted to any particular class of people.

18. Ganja deteriorates by keeping. It keeps good with ordinary care for one year. Then it begins to loose its narcotic properties by degrees, and after three years it becomes quite useless.

19. Ganja is generally smoked throughout the State, and on rare occasions eaten with meat or sweetmeats and drunk in milk or water after being well pounded, in the talukas of Miraj-Prant and Shahapur. It is also administered to animals, by way of medicine.

20. Ganja-smoking is not confined to any particular class of persons. However, people of the lower classes, especially the class of mendicants called gosains and bairagis and fakirs, are generally known to indulge freely in this kind of drug, which serves them as a stimulant.

The total population of the State is 238,945 souls. Of these about 5,000 or nearly 3 per cent. smoke ganja. Ganja smokers are distributed in the six different talukas of the State as given below:—

Miraj-Prant	700
Kuchi	200
Mangalwedh . . .	400
Terdal	300
Shahapur	3,000
Sherhatti	400
	5,000

21. So far as this State is concerned, flat ganja is generally preferred for smoking.

22 to 24. Not known.

25. The use of ganja, which is the only hemp drug consumed in the State, is neither on the increase nor on the decrease.

26. The proportion of the ganja consumers is as given below:—

(*a*)	3,750	or 75 per cent.
(*b*)	500	or 10 ditto.
(*c*)	500	or 10 ditto.
(*d*)	250	or 5 ditto.
	5,000	

27. Habitual as well as occasional excessive consumers are generally found from among the classes of mendicants called gosains, bairagis, and fakirs. Moderate consumers, habitual as well as occasional, are taken from all the classes of population, especially the lower classes. Men of small means, who have to work hard for their maintenance, generally take to the habit of ganja-smoking.

28. The average quantity of ganja which a habitual moderate consumer requires per diem is about two tolas, and its cost is about three pies. A habitual excessive consumer requires more than triple that quantity.

29. The ordinary ingredient that is mixed with ganja for smoking is tobacco. The ganja smokers say that tobacco adds to the odour and taste of ganja. Sometimes aromatic spices are added to the admixture. The following ingredients, *viz.*, opium, bachanaga (*Gloriosa superba*), dhatura (thorn apple), and kachala (strychnia) are mixed with ganja to give it greater intoxicating properties. The admixture thus formed is called panch-rangi (consisting of five narcotics) ganja.

No; I do not know of any preparation such as bhang massala.

30. Ganja is smoked in this part of the country generally in company. It is mainly confined to the male sex. It is generally the period of manhood when one gets addicted to the habit of smoking ganja. Children are never seen to smoke ganja.

31. The habit of smoking ganja is easily formed, and when once formed it is difficult to break off. Ganja-smoking has a tendency for the moderate habit to develop into the excessive.

32. There is no custom, religious or social, in regard to the consumption of ganja. Its use is neither socially nor religiously prohibited.

33. Society looks upon ganja-smoking with contempt, as it produces evil effects on body and mind in old age, and decline of health. Besides, indulgence in every kind of intoxicating drugs is regarded as a vice. I have no knowledge of any custom of worshipping the hemp plant on any occasion by any sects of the people.

34. It would be a serious privation to habitual smokers of ganja to forego the consumption, as it is a very difficult thing to break off the habit once formed. Besides there is no cheaper drug which can as a stimulant be substituted for ganja. People who have to toil hard must have some narcotic drug to keep their spirits up. These men will keenly feel the want of ganja.

35. I do not think that it is feasible to prohibit the use of ganja unless its cultivation is wholly stopped like poppy. It would lead to discontent among a class of desperate men, such as bairagis, gosains, and other vagrant mendicants, who have no property to lose in the event of a riot or even a more serious disturbance. But no political danger need be apprehended from it. The prohibition will be followed by having recourse to other stimulant drugs, not necessarily to alcoholic stimulants, as they are dearer than the former.

36. I see no reason to think that alcohol is now being to any extent substituted for ganja smoking.

37 and 38. Not known.

39. The drinking or eating of ganja is less injurious to health than smoking, as the latter directly acts upon the brain, while the former serves as a nourishment.

40. In Sharangdhar and Yoga-ratnakar (treatises on native medicines) ganja (bhang) is

pr scribed as one of the ingredients of the medicine to be administered in cases of dysentry and diarrhœa. In Yoga-ratnakar an oil prepared from bhang with some other things is prescribed for white leprosy. Bhang smoking is also prescribed against poisons of fish and scorpions. Ganja is also administered to animals by way of medicine.

41. When used in small quantities, ganja acts as a stimulant, and sometimes invigorates and refreshes body and mind. It also quickens digestion, and acts as febrifuge or preventive of disease in malarious and unhealthy tracts. Most of the gosains, bairagis, and fakirs use ganja as a febrifuge or preventive of disease in malarious and unhealthy tracts, and as a drug to give staying power under severe exertion or exposure or to alleviate fatigue. The moderate habitual use of ganja brings on these beneficial effects.

42. The moderate use is not only harmless, but positively beneficial.

43. Yes; moderate ganja smokers are inoffensive to their neighbours.

44. The moderate use of ganja produces the following immediate effects on the habitual consumer:—It refreshes him. It excites his hunger. It creates appetite. The effects last for an hour or so after smoking. It does not produce intoxication. Yes, the want of subsequent gratification produces uneasiness.

45. The habitual moderate use of ganja, if accompanied by good nourishment, does not produce any of the noxious effects mentioned in this question. However, in old age and decline of health all these effects are produced. It does not impair the moral sense or induce laziness or habits of immorality or debauchery. It does not deaden the intellect or produce insanity. On the contrary, it is said that it sharpens the intellect.

46. Habitual excessive use of ganja produces all the noxious effects mentioned in question No. 45. The insanity produced, however, is temporary, and may disappear when the use is stopped. But the symptoms may again be reinduced by use of the drug after liberation from restraint. Insanes from ganja-smoking confess to the use of the drug.

47 and 48. The habitual moderate use of ganja does not appear to be a hereditary habit or to affect in any way the children of the moderate consumers.

49 and 50. No.

51. Most of the persons of bad character are habitual moderate smokers of ganja. However, all ganja smokers are not necessarily persons of bad character. The moderate use of this drug has no connection with crime in general or with crime of any special character, except that this drug is often used by the criminals to fortify themselves to commit crimes especially perpetrated in day times.

52. The same as above, except that in fortifying themselves to commit crimes, criminals never resort to excessive use of ganja.

53. Not necessarily. I am not aware of any case in which the excessive indulgence in ganja smoking has led to temporary homicidal frenzy.

54. Yes; they are so used sometimes.

55. Yes; occasionally. Complete stupefaction can be induced by smoking ganja without admixture.

56. The admixture of ganja with dhatura (thorn apple) makes the ganja more intoxicant for personal consumption as well as for administration to others. The use of this admixture in moderation as well as in excess is injurious to all physically and mentally. It impairs the constitution and injures the digestion; causes dysentery, bronchitis and asthma, and deadens the intellect and produces insanity.

47, *Evidence of* DADABHAI BURJORJEE GUZDER, *Parsi, District Abkari Inspector, Ahmednagar.*

1. After my transfer to the Ahmednagar district in the month of May 1890, I began to know of the cultivation of ganja. After a lapse of time I tried to make myself fully acquainted with the cultivation thereof. On receipt of Government Resolutions (Revenue Department) Nos. 5139 and 6601, dated respectively the 14th July and 11th September 1893, I began to collect the information in detail about the same. Before my transfer to this district I had no knowledge regarding the cultivation of ganja.

2. In this district "siddhi," "subji," or "patti," are not known. The product known is that of hemp plant, otherwise called ganja, bhang, and charas. Flat ganja is simply known in this district. It is obtained from the dried heads or tops of the hemp plant trodden. Charas is a sticky or gummy substance which sticks to the hands of the persons while plucking the heads of the hemp plant. This substance is taken off by rubbing the palms, which is called "charas." Bhang is the powder-like substance that remains at the bottom of the ganja collected. This is called bhang. But in fact this is not a genuine one. The genuine one is cultivated in two talukas of this district for the requirement of the seeds, and the remaining leaves after being separated and dashed against forms the genuine bhang. The definitions of "charas" and "ganja" given in this query may safely be accepted for this province, except that round ganja is unknown to this province. Each of these products is locally known by the respective name given to each of them as above in the query.

3. From the information collected by me, I learn of no instance of the spontaneous growth of the hemp plant anywhere in the Ahmednagar district.

4. It is simply known by one name only, namely, ganja.

5. I do not know that any special conditions of climate, soil, rainfall, elevation above sea level, etc., are necessary for the growth of the wild hemp. The wild hemp, the cultivators say, does not grow in this district. In the district of Ahmednagar the male plants (otherwise called bhangoda) are called wild plants by some of the cultivators, and they are removed from the fields if grown along with female plants. For they convert the whole crop of ganja to useless seed-producing plants. The information asked for in this question is not forthcoming, as the growth

of the wild plant does not take place in this district.

6. As the wild hemp plant is hardly scattered in almost the whole of this district, I am unable to give any definite answer as to whether its growth is either dense or scattered.

7. There is cultivation of the hemp plant in the district of Ahmednagar—

(*a*) For production of ganja, yes.

(*b*) For production of charas, no (please see answer to questions Nos. 20 and 37).

(*c*) For use as bhang, yes.

(*d*) For its fibre or seed—Simply for seeds, and not for fibres.

As the figures of the cultivation of the hemp plant for the current year, *viz.*, 1893-94, are not at present ready, those for the previous one are given here.

The cultivation of the hemp plant in this province is given for each taluka in the following table for the year 1892-93:—

No.	Name of taluka.	Area, 1892-93.	
		Acres.	Gunthas.
1	Nagar	177	34
2	Parner	...	...
3	Shrigonda	...	...
4	Karjat	20	24
5	Jamkhed	...	...
6	Sheogaon	17	7
7	Newasa	62	4
8	Rahuri	89	25½
9	Kopargaon	10	...
10	Sangamner	5	...
11	Akola	...	...
	Total	382	14½

8. As compared with the area formerly under cultivation of the hemp plant for the last five years in this district, it would be seen that there is an increase in the area under cultivation of the hemp plant, with the exception of the last year, which is mainly attributable to excessive rainfall.

9. Bagayet and black soil well manured is required for the cultivation of the hemp plant. It is required to be ploughed twice or thrice in order to make the soil loose and soft. Then the manure, which chiefly consists of straw, and all sorts of refuse, is spread over the plot of ground so prepared. When the monsoon sets in, the seed of ganja is sown in the beginning of June. It is sown exactly like jowari. The seed is sown in rows, leaving a distance of a foot and a half between them.

It takes a period of five months for its full growth, during which time the grass is required to be weeded out twice or thrice, as is found necessary, for the nourishment of the hemp plant. When the plants begin to blossom, experts are employed to eradicate the seed-producing plants which, if allowed to remain, will convert the whole crop to useless seed-producing plants called "bhangora," *i.e.*, male plants. At the beginning of November, the dried heads of the hemp plants are cut and collected on a threshing floor; they undergo the operation of being trodden and are then dried in the sun. The process is repeated successively for three or four days. Thereupon the whole stuff is winnowed, and is called ganja, and the powder-like substance that remains at the bottom is called bhang or chur, but it is not the genuine bhang.

10. The persons who cultivate hemp for its narcotic properties do not form a special class. They are of the same classes as other agriculturists.

11. The plants cultivated for the production of ganja are never raised from the seed of the wild hemp; but the seeds required for the cultivation of ganja are quite different.

12. The wild hemp is nowhere specially cultivated for the production of ganja in this district. As there is no such cultivation perceptible, I am unable to give the names of the districts or tracts in which this occurs, as well as the extent to which the practice exists. I am unable to say anything as to whether the male plant is extirpated in such cases or not.

13. The cultivation of the hemp plant for ganja is not restricted in the district of Ahmednagar. Although it is not restricted in this district, yet the cultivation of it is not common to the whole of this district, because it requires soil of the black and best quality, and moderate rainfall is needed. The conditions of climate, soil, rainfall, elevation above sea level, etc., are essentially necessary for its production. In the talukas of Jamkhed and Akola of this district the cultivation of the hemp plant is impossible owing to the hilly nature of these talukas, because the hemp plant being a deep-rooted plant, its roots cannot sufficiently find their way underneath the ground. Owing to this defect in the soil, its cultivation becomes impossible. In the Akola taluka, where the rainfall is generally heavy, the cultivation of the hemp plant does not at all take place.

14. The following products of the hemp plant namely—

(*a*) ganja,

(*b*) charas,

(*c*) bhang,

are prepared in this district.

(*a*) Ganja is prepared in the talukas of Nagar, Newasa, Rahuri, Sheogaon, Karjat, Kopargaon, Shrigonda, Parner, and Sangamner. Its extent during the year 1892-93 was 382 acres.

15. The wild plant is not cultivated in this district, nor anything of it is used if found anywhere. For eating and smoking ganja the flower tops are used, and it has been described elsewhere in answer to question No. 9. What all is necessary is to get the trees to yield the flower tops. For drinking only the leaves of the plant are used, which are called bhang, and what bhang is, and how it is prepared, is given in answer to question No. 2. There is, besides the above, no other distinction in sowing the hemp plant for the preparation of the several drugs.

16. Bhang is not prepared generally by people in their houses. It can be prepared from the hemp plant wherever grown. As the wild plant does not grow in this district, its preparations cannot be ascertained.

17. Ganja, charas, and bhang are prepared by cultivators; majum, yakuti, shrikhand, fakki, and gulkand by gaudhis—that is, by those dealing in native perfumes.

18. Ganja, bhang, and charas deteriorate by keeping more than a year. They quite lose their intoxicating effect after a period of two years. If special care be taken, they can remain in good

condition for about two years. The causes of their deterioration are numerous, but the people of this province are unable to ascertain the exact ones. The chief cause I can best understand is the bad arrangement of their packing in gunny bags, which does not perfectly protect them from the destructive agencies of their narcotic property, *viz.*, heat, light, and rain. In order to prevent deterioration, they should be kept in tin or wood boxes, and should, as far as possible, be kept apart from the destructive agencies cited above. The other precaution to be taken is that in transmission they should not be allowed to break into chur, which becomes less effective.

19. Ganja mixed with tobacco is used for smoking as well as for medicinal purposes, while charas mixed with gudakhu (a substance prepared by mixing tobacco with jagri) is only used for smoking. Ganja, bhang or ghota, and boja also are used for drinking purposes. The above preparations except boja are generally used in the city of Nagar and large populous places in the district of Ahmednagar. Boja is only prepared and consumed in the Sholapur district.

20. As charas is produced in a comparatively small proportion, very few people can procure it for smoking. Among persons who get opportunities to be present at the time of ganja being harvested, those who are given to ganja-smoking generally try to secure it, and owing to its small production it is never brought to market for sale. Ganja-smoking is not generally restricted to any particular class of people, but it is used by a great number of fakirs, bairagis, gosains, and other beggars.

21. The flat kind of ganja is only known and used in this district; therefore it is not possible to give any particulars of the other kinds.

22. Native charas is used in this district, as stated in questions No. 20 and 37, to the extent and in the form secured as explained in the said question. Owing to the insignificant quantity consumed in this district, no foreign charas is imported, and therefore no particulars regarding it can be given.

23. Bhang is never used for smoking, but it is used for drinking in the form of ghota, which is generally taken to a moderate extent by the bairagis, sadhus, fakirs, and marwadis, the object being to cool their brains in the hot weather in this district.

24. Use of majum is generally made by people who are debauched. If comparison be made as regards the users of it in the city of Nagar, it will be found in the proportion of one or two persons to every one hundred of its population. Yakuti, gulkand, and shrikhand are used by rich persons on account of their sweet scent, and because of their partial intoxicating quality. Fakki is used by mendicants and bairagis, etc., who cannot afford to spend money. These persons indulge in this, because they are prohibited from using alcohol on account of religious restrictions.

25. The use of ganja, charas, and bhang is generally on the decrease amongst the higher classes on account of their advance in civilization. But in the lower classes the use of them is on the increase, because they are cheaper as compared with other intoxicants, being at the same time less harmless to health.

26. (*a*) The proportion of the moderate habitual consumers is 2 per cent.

(*b*) The proportion of habitual excessive consumers is 2 per cent.

(*c*) The proportion of occasional moderate consumers is 1 per cent.

(*d*) The proportion of occasional excessive consumers is 1 per cent.

27. The Parsis and Christians do not use any of the above drugs at all; the principal class is that of marwadis, labourers, fakirs and bairagis, who particularly indulge in them. The habit of drinking or smoking is generally obtained by keeping company with the persons who indulge in any of these drugs. The reason why the labourers use any of these drugs is that they forget for a while their fatigues, and others use it for the sake of pleasure.

28. The average allowance and cost of each of these drugs per diem to (*a*) habitual moderate consumers is ¼ of an anna of the weight of ½ tola of ganja.

(*b*) Habitual excessive consumers, ¾ of an anna or nine pies worth of ganja, which weighs 1½ tolas.

29. When either ganja or charas is used for smoking, one-fourth quantity of tobacco or gudakhu is mixed with three-fourths quantity of either of the drugs to enable the ganja or charas to burn soon, especially the former, which is not used without being well washed, and while in a wet state. Different classes of consumers are not known to mix any other ingredients. All classes of people generally mix the same kinds of ingredients, *viz.*, tobacco. Dhatura is a most injurious and harmful drug; it is never used by consumers except when much intoxication is required by them, and even on this occasion they first mix it with ganja or charas before using it, *i.e.*, it is not smoked in its original form. It is generally used by criminals to carry out their designs sooner without fear of detection. The use of the admixture is simply to effect intoxication, in absence of which no intoxicating effect can be had.

I am not aware of any preparation such as bhang-massala, as it is unknown in this district. But bhang is mixed with milk, almonds, sugar-candy, ginger, cardamoms, and poppy seeds by the rich. The poor use bhang with jagri. The object of mixing bhang with other ingredients is simply to give a kind of relish to the bhang drink.

Besides the above, majum, yakuti, shrikhand, gulkand, and fakki are also prepared from ganja. I am also informed that there is such a preparation as boja, of which there is a regular Government farm in the Sholapur district of the Bombay presidency. The mixture consists of the ingredients as per recipe attached.

The preparation of boja is as follows:—Jawari is roughly ground and boiled. It is then dried in the air. It is then mixed with the following articles. For (4) pailies of jawari boja—22 tolas kosht-kolanjan, 2lb. of bhang, 5 tolas of dawna, 20 tolas of jawari offshoots, 5 tolas of marwa, 5 tolas of kuchla, and the whole is put into a pot. Having kept this in this manner, it is called on the next day "boja" in the Sholapur district. Thirty seers of boja requires 15 seers of water, and after filtering the same through the cloth it becomes fit for drinking.

30. The consumption of these drugs is practised in solitude by the higher and rich classes to the extent of 1 per cent. and in company by

the lower classes, as, for instance, labourers, bairagis, sadhus, fakirs, etc., to the extent of 6 per cent. It is mainly confined to the male sex. It is not usual for children to consume any of these drugs, but as medicine it is sometimes given to them in particular diseases.

31. The habit of consuming any of these drugs is not easily formed. It is formed by company of persons who are solely given to these drugs. It is not very difficult to break off to the moderate users of it, and it has a tendency for the moderate habit to develop into the excessive. But the excessive cannot break off the habit.

32. The consumption of any of these drugs is regarded as religious by ascetics and bairagis, who say that by the use of any of these drugs their sole attention is devoted to the Almighty. Some of the worshippers of the god Shiva regard the use of these drugs in a high sense. The use of these drugs in connection with such custom is regarded as essential, simply because it is beneficial to health when temperately used. No doubt it leads to the formation of the habit, and is not injurious if properly used. The social position of a man addicted to the use of these drugs is not much lowered in the eyes of his co-religionists as that of a man given to alcohol. I am not aware of any other, either social or religious customs in regard to the consumption of these drugs, with the exception of the one mentioned by me above, as regards the liking of it by the god Shiva.

33. The consumption of each of these drugs is generally regarded as a low thing, but morally viewed the use is not condemned. Persons using these drugs are not held irreligious. The use of smoking is generally in disrepute. The disrepute is attributable to its intoxicating influence under which the user of it some time remains. There is not a custom of worshipping the hemp plant in this district on any occasion by any sects of the people. Before the hemp plant is harvested, it is worshipped like other agricultural produce by the cultivators of it. The object in so doing is nothing but to seek the assistance of the agricultural goddess in procuring eligible sale proceeds of the ganja.

34. It would be a serious hardship to the consumers of these drugs, if their consumption be stopped. As these drugs beguile the tediousness or fatigue of their labour and can be obtained at a cheap rate, and as they have in them a quality of making a man forget for a while all worldly cares and anxieties, they are chiefly used by labouring classes. The prohibition of its use would not be liked by 75 per cent. of the consumers.

35. It would not be feasible to prohibit the use of any of these drugs. The drug would be consumed illicitly. If the cultivation of the hemp plant be totally discontinued, the prohibition can be easily enforced, but thereby the agriculturists would suffer much, because the cultivation of ganja improves the quality of the soil. The prohibition of any of these drugs would undoubtedly occasion a serious discontent amongst the consumers generally. Such discontent, in my opinion, would not amount to a political danger. The prohibition would be followed by recourse to alcoholic stimulants or other drugs, which will depend upon the means of the consumer; but it is a work of time, because the native drugs to which they are easily accustomed can be had at a smaller price than any alcoholic stimulants.

36. It cannot be stated that alcohol is now being substituted for any of these drugs. It chiefly depends upon the choice of the people using them. Some people use alcohol and some these drugs, but for these drugs alcohol is not preferred, as the latter is more expensive than the former, and is regarded irreligious by particular classes of people.

37. Charas has more intoxicating effect than ganja, being the essence of the plant. It is used in smoking simply by adding gudakhu, while ganja is first perfectly cleaned and washed with water, and by mixing gudakhu to the so-cleaned ganja it is used for smoking. The latter is easily procurable at the shops, but the former cannot be had in shops, but it is used by cultivators while harvesting.

38. Round ganja is not prepared in this district. Flat ganja has more intoxicating effect on consumers than chur. Chur is nothing but a powder-like substance that remains at the bottom of the ganja prepared and collected. Chur is sometimes used for smoking, while ganja is used for various preparations.

39. The smoking of any preparation of the hemp plant is more injurious than drinking or eating the same or any other preparation, because the excessive use in smoking is hurtful. It affects the lungs and chest, produces cough and excessive heat in the body, and dries up blood in the system. While in drinking and eating it has a beneficial effect on the constitution, inasmuch as it cools the system, and it is consumed even by more advanced classes in the hot season.

40. Native doctors prescribe the use of these drugs for medicinal qualities on most diseases. They are also used in the treatment of cattle and all kinds of animal diseases. It is given to cattle and horses to encourage their eating more. Being under the influence of it, they go on chewing their food and run faster.

41. The moderate use of ganja, bhang, or charas is beneficial in its effects.

(*a*) It has a digestive power.

(*b*) It gives staying power under severe exertion and alleviates fatigue.

(*c*) It destroys the bad effects resulting from bad water in malarious and unhealthy tracts.

The tendency of the people in using the drug is mainly to secure the effects stated above. The reference is applicable to the moderate habitual users as well as to the moderate occasional users, but in the case of the latter the effects are prompt and quick.

42. The moderate use of these drugs is harmless and is beneficial, because it has got the quality of exciting appetite and a digestive power. It has an astringent taste, and gives refreshing sleep in order to enable the user of it to overcome the effects of fatigue.

43. The moderate consumers are inoffensive to their neighbours, because when the drug is taken, it stupefies the user of it for two or three hours at least; and while under its influence he is unable to do any harm to his neighbours.

44. Habitual consumers do not get any intoxicating effect by a moderate use of any of these drugs. It is refreshing in a less degree. It does not produce intoxication at all. It does not allay hunger, but excites it. It creates appetite. The effect lasts for a few hours. As to after-effects there are practically none. The want of subse-

quent gratification produces longing and uneasiness.

45. The habitual moderate use of any of these drugs does not produce any noxious effects, physical, mental, or moral. It impairs the constitution in some way if substantial food be not taken. It does not injure digestion or cause loss of appetite, but it creates appetite. It arrests dysentery, but causes bronchitis or asthma if used in excess in smoking in the absence of any substantial food. It impairs the moral sense and does not induce laziness or habits of immorality or debauchery. It does not deaden the intellect or produce insanity to the habitual moderate users. It does not produce insanity. The persons suffering from mental anxiety or brain disease obtain relief from the moderate use of these drugs. As to the latter portion of this query, I am not in a position to answer it better than a medical person. No further account under each of the above points can be given by me, being unacquainted with any of its medicinal effects.

46. An excessive consumer of any of these drugs would suffer severely. The excessive use of these drugs is likewise considered to stupefy the intellect and produce insanity. I am unable to say anything about the time for which the stupefaction or insanity continues.

47. The habitual moderate use of any of these drugs does not appear to be a hereditary habit or to affect in any way the children of the moderate consumer.

48. Please see answer to the preceding question (*i.e.*, No. 47).

49. The moderate use of these drugs is practised as an aphrodisiac. It is not generally used by prostitutes. It is not more injurious than any ordinary narcotic. It tends to produce impotence if it is used in excess.

50. The excessive use of any of these drugs can never be practised as an aphrodisiac. Prostitutes never use it in excess. It is certainly more harmful than its use as an ordinary narcotic. Excessive use produces impotence.

51. Habitual moderate consumers of any of these drugs are never as a rule men of bad character. The use of these drugs has no tendency towards the committal of crime, and therefore it has no connection with crime.

52. As stated in the above question, the moderate use of any of these drugs has no connection with crime; and when there is none by moderate use, there is naturally an entire absence in the case of excessive use, the use resulting, as elsewhere stated, of making the man harmless and useless for any but sedentary work.

53. Excessive indulgence in any of these drugs does not incite to unpremeditated crime at all. I have not seen or heard any instance in which it has led to temporary homicidal frenzy.

54. These drugs are not used by criminals to fortify themselves to commit a premeditated act of violence or other crime in any way, the effects being, as stated elsewhere, to make a man useless for any active work.

55. Entire stupefaction cannot be effected by the simple use of these drugs.

It must be mixed with dhatura; and a criminal generally, when he attempts any thing, makes sure of his victim, so he always makes it a point to administer the drug with dhatura. I have not heard of a case in which by simple use complete stupefaction has ensued.

56. The effects of hemp used in moderation, modified by the admixture of other substances like spices, are not dangerous to the consumer himself or others. But when mixed with dhatura or any such bad article—for instance, the roots of the jowari tree or canery—it results in making the consumer helpless, and would injure his health. The admixture of dhatura for personal consumption is taken on the occasion when complete stupefaction is required by excessive consumers. When it is used for administration to others, the effects generally result in death.

57. Charas mixed with a little of gudakhu is simply used for smoking. Its production being scanty, its use is also limited. The effects and uses of ganja used in moderation, specially in eating and drinking, by admixture of some sweet spices are good. It produces sound sleep, increases appetite, avoids dysentery, and is useful to the native doctors for medicinal purposes on various occasions.

58. As far as I am acquainted with the present system of excise administration in this province, I am of opinion that it is working well. I can humbly submit that the system is capable of still further improvement—*viz*, firstly, the rates of sale at which ganja or bhang shall be sold by a licensed vendor should form one of the main among other conditions of the sale license.

59. The price at which opium shall be sold per pound, as well as the quantity of country liquor to be sold per gallon, if it is fixed by Government, the same case should be made applicable as regards ganja.

I beg further to suggest that the right of sale of ganja during the year should not be farmed for each taluka separately, as is the custom at present prevailing in this district, but it should be treated in the same way as the opium and country liquor farms.

The wholesale dealers in ganja should not, as at present, be allowed to keep in their custody the whole quantity of the ganja they buy of the cultivators, but it should remain in the custody of the Abkari Inspector. When the wholesale dealer shall obtain a written permit from the Huzur Deputy Collector for exporting ganja, he should be required to remove the same after the Abkari Inspector has given the requisite quantity out of the quantity deposited by him in a store-house; and the whole quantity thus deposited should remain in the possession of the wholesale dealer in a room locked under key, the lock of which should invariably be made to bear on it the seal of the Abkari Inspector, and the room should not be allowed to be opened or closed without the presence of the Abkari Inspector himself, like the country liquor system. The wholesale dealer should for this purpose prepare a book, and obtain Collector's seals thereon, which should contain every description of the quantity of the ganja received and removed from the store-house.

60. I think that the cultivation of the ganja-bearing plant and the process of its preparation are sufficiently controlled.

61. Charas, as stated elsewhere above, is not produced for trade in this district, nor is the plantation of the hemp plant made with this object. If in future it was found that it is being produced for purposes of trade, perhaps then it may be necessary to make some provision; but, all the same, it is nothing more than a little stronger smoke than ganja.

62. I think that the cultivation of the hemp plant for the production of bhang is sufficiently controlled.

63. As regards the answer to this query, I beg to invite a reference to the answer given by me to question No. 59—*vide* the latter portion of it.

64. I think that there is no objection to the existing regulations governing the export and import of these drugs or of their preparations except that the proposal made by me in answer to query No. 59 should, if deemed fit, be adopted, by which I am humbly of opinion a greater check will certainly be exercised over the hemp plant than at present.

65. I am humbly of opinion that the taxation of (1) ganja, (2) charas, and (3) bhang is certainly reasonable with reference (*a*) to each other, and (*b*) to alcoholic or other intoxicants. The consumers of alcoholic and other intoxicants are far more in number if compared with those who use ganja and its various preparations, they being cheaper than the above two intoxicants, *viz.*, opium and liquor, and less intoxicating in their effects. I think the taxation of these drugs is reasonable as compared with other intoxicants. It is the poor only who use it, and if the duty is raised thereon the poor would not be able to get any other cheaper intoxicant as a substitute.

66. I am of opinion that there need not be different rates of taxation for different kinds of ganja, such as the flat or round ganja grown in different localities. The present rates of taxation are sufficient for them. I am unable to say anything about the broken ganja produced in Bengal.

67. I am of opinion that there is no objection to the present method of taxing ganja and bhang being continued. The present system is good and agreeable to the consumers.

68. There are no houses or shops licensed in this district for consumption of any of these drugs on the premises.

69. The wishes of the people are first consulted or considered by the Collector before permission is granted, if deemed necessary, to open a shop in any locality. For this purpose, application bearing the signatures of the residents in a locality is submitted to the Collector, who sends it for enquiry and report to the taluka mamlatdar and Abkari Inspector, who if report favourably to the wishes of the people, permission is granted. The local public opinion must necessarily be obtained in each case.

70. The production of the hemp plant being abundant in this district, there is no importation or smuggling of hemp drugs from Native States.

---

48. *Evidence of* KHAN SAHIB NASARVANJI EDALJI SETHNA, *Parsi, Abkari Inspector, Satara.*

1. I am Abkari Inspector, and as such, in the execution of my duties, I have had opportunities of obtaining information regarding hemp drugs.

2. The definition of the word ganja, as given in the question, is accepted for this district (Satara). But charas and bhang being not exactly what they are meant in the definitions, I define them separately as they are known here.

Charas is the name applied to the resinous exudation which, emanating from the ganja tops and the leaves and small buds at the time of harvesting, sticks to the palm and fingers of the hands. This exudation is then scraped off the hands and turned into pills.

Bhang, otherwise called garda, is the powdered dust and leaves which are separated from the ganja, when it undergoes the process of winnowing, and also the powder produced by the handling of ganja subsequently.

Only one kind of ganja is sold here, and that is flat ganja. It is manufactured by being trodden under foot, so that the flower tops assume a flattened shape. Neither the round ganja nor the broken ganja is known in this district.

3. I do not know of any districts in Guzerat or Deccan where the hemp plant grows spontaneously. It does not grow spontaneously in Kaira and Satara.

4. The wild plant is not known here.

5. As wild hemp does not grow here, the special conditions of climate, etc., are not known.

6. As wild hemp does not grow here, I cannot say if the growth is dense or scattered.

7. Hemp plant is cultivated for production of ganja in the Satara district. About 300 acres of land were under cultivation during 1892-93. It is not cultivated for production of charas or for use as bhang or for its fibre or seeds.

8. I do not find any considerable increase or decrease in the area under cultivation. The amount of cultivation is almost in the same state in which it has been for some time.

9. After the soil is manured and ploughed, the seed is sown with the usual three-drilled implement, one drill of which is, however, used. The seed used is the Ahmednagar seed, as the cultivators prefer this to the Satara seed, the crops raised from the latter seed being more subject to blight than those raised from the Ahmednagar seed. The seed is sown in the month of Ashad (July-August), and it is required at the rate of 1½ to 2 seers (capacity measure) per acre of land. About a week after the date of sowing young plants begin to show, and in the second week the cultivator removes sickly plants and those which are very close, one inch of space being allowed between any two plants. By the end of three weeks the plants stand about a foot high, when the cultivator removes the weeds and clears the space between the rows. About a month after the sowing the plants are about 18 inches high. The plants are then examined by an expert, who readily detects and removes such plants as are likely to be affected by blight. Each plant is examined once a week. If the rainfall has been timely and sufficient, two more waterings are necessary before the crop is ready for harvesting. Otherwise the crop is watered three times, and so arranged that the last watering takes place about 14 days before harvesting. The crop is then harvested in the month of Kartick (November).

10. Hemp cultivators, for its narcotic properties, do not form a special class. They belong to the original agricultural class.

11. No.

12. I am not aware of any districts in which the wild hemp is specially cultivated for the production of ganja.

13. The cultivation of the hemp plant for ganja is not restricted in this province. It is not, however, common to all districts, the conditions being necessary for the cultivation. Ganja plants would not grow in places where the rainfall was heavy or the temperature low. The cultivation of hemp plant for ganja in Mahableshwar and other similar places would be impossible.

14 (*a*) Ganja alone is prepared from the hemp plant in the Satara district, about 330 acres of land being under cultivation for the purpose.

(*b*) Charas is not prepared or sold here.

(*c*) Bhang is not prepared here. It is, as defined above, the powdered dust and leaves produced by the handling of ganja. It is mostly used as manure, and partly in some preparations called ghota and dudhia.

15. (*a*) The wild plant is not known here, and so the several methods of preparations from the cultivated and the wild plant cannot be distinguished. Ganja from the cultivated plant is prepared thus:—

The crop being ready for harvesting, the first process is to cut the tops of the plants, and then the buds and small leaves. The tops of the leaves and the buds are then carried to a place prepared for the purpose, and arranged in heaps and exposed to the sun to dry. It is then trodden under foot by men. When crushed it is turned over and again exposed to the sun, the process of treading being repeated about five times a day for four days. In this way the tops, the leaves and the buds become a cohesive mass owing to the resinous matter contained therein. The more the resinous matter, the better is the quality of ganja. The next process is that of winnowing, which removes loose leaves and dust. The ganja thus finally prepared is in heavy green lumps showing yellow fibres.

(*b*) In my answer to question No. 2, I have defined what charas is. No preparation is made from it. It is not sold or consumed by the people in its original state, except by some solitary bairagi or ascetic who happens to be on the spot where ganja is prepared. He obtains a pill or two of the scraped-off exudation from a cultivator at the time of harvesting.

(*c*) Bhang, as defined above, is mixed and pounded with spices and sugar, and the preparation is called ghota. Another preparation of bhang is called dudhia, which is prepared by mixing milk to ghota.

Ganja is principally used in smoking. It is also used in a preparation called massala, which contains, besides ganja, certain other ingredients. This massala is given to horses to eat when they are fatigued by long journeys or when they are suffering from cold. Charas is used in smoking only. Bhang is used in drinking only.

16. I have already stated above that bhang is nothing more than the powdered dust and leaves of ganja. It does not require any process for its preparation. It is produced by a handling of the ganja. It is as if it were that bhang and ganja go hand in hand. The wild plant is not known here, and so I cannot say if ganja or charas can be prepared from the plant, wherever grown.

17. No preparations, if any, of the three drugs are sold here. The classes of people who prepare the preparations are the classes who use them. The preparations are ghota and dudhia, and these are prepared by persons from amongst the agricultural and labouring classes, fakirs, bairagis, sadhus, etc.

18. Ganja and bhang deteriorate by keeping. They lose the effect gradually. Ganja loses its intoxicating property by half in the second year of its production, and in the third year its value is one-fourth of what it was in the beginning. Bhang is valueless almost in the first year, it being used as manure. With all the care ganja will deteriorate.

19. Ganja is principally used for smoking. It is also used in preparing massala for horses when they are fatigued by long journeys or when they are suffering from cold. Charas is used in smoking only.

20. Charas is not a recognised drug of the district. There is very little use of it. A stray bairagi or fakir happening to be on the spot where ganja is manufactured might require it for smoking. So charas cannot be recognised as one of the established drugs used in this district. Persons from amongst the agriculturists, labourers, cartmen, bairagis, fakirs, ghisaris (blacksmiths), tambolis (pan-sellers), bagwans (fruiterers), attar (colour sellers), maner (bangadi preparers), mullahs (Muhammadan priests), dervishes (who make a show of tigers and bears), bahurupi (actors in theatres), sarwans (camel drivers), and persons from amongst the class of peons, whether in Goverment service or private service, smoke ganja. The proportion of the people who smoke ganja is at the rate of about three to one hundred. They smoke in their houses or places of residence.

21. Only flat ganja is used in this district for smoking.

22. No charas, whether native or foreign, is chiefly used in this district. It is not imported.

23. Bhang is not used for smoking.

24. Bhang is not eaten but is drunk. There are very few people who drink bhang, and they are from amongst the class of bairagis, sadhus, or fakirs.

25. The use of ganja is neither on the increase nor decrease. From the figures of consumption, it appears that it is just about what it has been for some time. There is no use of charas, and bhang is not much used.

26. Of the consumers of ganja there are about 80 per cent. who are habitual moderate consumers and about 15 per cent. habitual excessive consumers, and about 5 per cent. who are occasional excessive consumers. Charas and bhang are consumed in such small quantities in this district that they require no special mention.

27. Habitual excessive consumers are mostly from amongst the class of bairagis, sadhus and fakirs; whilst the habitual moderate consumers and occasional moderate consumers are from amongst the classes mentioned in the answer to question No. 20. There are no particular habits of life or circumstances which lead to the practice of consuming the drug.

28. The average allowance of ganja and the average cost per diem to habitual consumers is two tolas and six pies respectively. A habitual excessive consumer requires on an average five tolas worth of ganja, costing one anna and three pies, including cost of tobacco.

29. In making massala for horses some ingredients have to be mixed with ganja; with charas no ingredients are mixed. In making ghota, sugar and spices, such as almonds, nutmeg, mace

and cardamom are mixed with bhang. By mixing milk to ghota dudhia is prepared. The spices are hot substances, and, with a view to give heat to the body, they are mixed with bhang. I do not know anything about the preparation called bhang massala.

30. A smoker of ganja would prefer to smoke in company if a smoker friend or two happen to be near him. If not, he will smoke in solitude. Ghota and dudhia are drinks which would mostly be consumed in company. By previous appointment there would be a company of friends at a particular place, when the ghota or dudhia would be prepared and drunk. Ganja is generally smoked by persons over the age of twenty-five up to any time in advanced life. Similarly ghota and dudhia are drunk by males of like age. Children do not consume any of these drugs.

31. A habit of consuming any of these drugs is easily formed, and it is difficult to break it off. There is a tendency of the habit to develop into the excessive.

32. There are no customs, social or religious, in regard to the consumption of any of these drugs.

33. The consumption and use of all or any of these drugs is regarded with contempt and disrepute by the public. People hold this opinion, I think, on account of the bad effects the drugs possess over the consumers. None of the people worship the hemp plant.

34. In my opinion it would not be a serious privation to any class of consumers to forego the consumption of the drug they use, because there are instances of men who used to smoke ganja before, but who have since left off smoking.

35. It would be feasible to prohibit the use of the three drugs and their preparations. The prohibition must extend to Native States also, that there may not be any chance of the drugs being smuggled and used in this district. For the prohibition to be enforced either that the cultivation of the ganja plant should stop altogether, or that heavy duties should be levied immediately the ganja is manufactured. The prohibition would not cause any serious discontent amongst the consumers. It would not cause any political danger. The prohibition would not be followed by recourse to alcoholic stimulants or other drugs.

36. I do not think that alcohol is now being to any extent substituted for any of the three drugs.

37. As charas smoking is so very rare in this district, the difference between the effects of ganja and charas smoking cannot be stated.

38. Only flat ganja is known in this district. So the difference in the effects between it and the round and chur ganja cannot be stated.

39. I cannot answer this question.

40. Ganja is used in making a massala for horses.

41 and 42. I cannot answer these questions.

43. Moderate consumers of ganja and bhang are inoffensive to their neighbours.

44. The immediate effect of moderate ganja smoking on the habitual smoker is that it is refreshing. It produces intoxication and creates appetite. The effect lasts for about an hour, and after that time there is a depression of mind. The want of subsequent smoking produces uneasiness.

45 and 46. I cannot answer these.

47. The habitual moderate use of ganja does not appear to be a hereditary habit. It does not affect in any way the children of the moderate consumer.

48. I cannot answer this.

49. Moderate ganja smoking does not produce any desire for sexual intercourse. Prostitutes smoke ganja; but I do not know whether they do so as an aphrodisiac. The use of ganja tends to produce impotence. Ghota and dudhia are used in Guzerat by males as an aphrodisiac.

50 to 53. I cannot answer these questions.

54. Ganja or bhang is not used by criminals to fortify themselves to commit a premeditated act of violence or other crime.

55 and 56. I cannot answer these.

57. Ganja and charas are not known to be eaten or drunk in this district.

58. The present system of excise administration works well and does not require any improvement.

59. No improvement necessary.

60. Ganja is produced in this district, and the ganja plants and the ganja itself are sufficiently under control, and no modification in the system appears to be necessary.

61. Charas is not produced in this district.

62. There is no cultivation in this district of the hemp plant for production of bhang, as bhang is nothing but the powdered dust and leaves of ganja produced by a handling of the ganja.

63. I have no objection to the present system of wholesale and retail vend of ganja. Charas is not sold at all. Bhang is not sold wholesale. It is sold retail. I have no objection against its system of retail vend.

64. I have no objection to the existing regulations governing the export and import of ganja from and into Satara or its transport within the province, excepting that all ganja for export and transport should be taken for examination, previous to removal to its destination, to the mamlatdar's office of the taluka to which the village whence the ganja is removed belongs. Charas and bhang are not exported from or imported into or transported within the Satara district.

65. With reference to alcoholic and other intoxicants ganja is lightly taxed; but as it is principally used by poor people, no change with a view to increase the duty would be desirable. Charas is not sold at all, and bhang is sold retail along with ganja.

66. I have not seen round or "broken" ganja, and so I cannot say whether there should be one uniform rate or different rates of taxation for different kinds of ganja.

67. I have no objection to propose to the present method of taxing ganja and bhang, charas not being sold.

68. There are no houses or shops in this district licensed for the sale of ganja and bhang, where the purchasers are permitted to consume the drugs on the premises. I am of opinion that there should not be such houses or shops.

69. The wishes of the people are partly considered before a shop is opened in any locality. Immediately an application for the opening of a shop is received, it is enquired into by the mamlatdar of the taluka to which the place where the shop is intended to be opened is subordinate and reported on to the Collector, with whom the final decision rests. Local public opinion should always be considered.

70. No hemp drugs are imported or smuggled from Native States into the Satara district. Duty is really paid in respect of all the ganja and bhang used here, no untaxed drugs being consumed.

49. *Evidence of* YASHVANT NILKANTH, *Patana Prabhu, Superintendent, Office of Survey Commissioner, and Director of Land Records and Agriculture, Bombay.*

1. Observation and conversation with persons dealing in and using these drugs.

2. So far as ganja and charas are concerned, Dr. Prain's definition is thoroughly applicable to the drugs used in the Deccan under these names. Bhang, as is generally used here, differs slightly from what is stated in the definition in being a mass of broken leaves of the hemp plant mixed with crushed pieces of the dried flower head in its immature state. This flowering top of the cultivated female hemp plant is called ganja.

The three described varieties of ganja—flat, round, and broken—are not recognized in the Deccan. The ganja in general use here is apparently what is described by Dr. Prain as flat ganja; but it is considered somewhat milder than the Upper India drug by those who have smoked ganja in Upper India as well as in the Deccan, the mildness being attributed to the practice in the Deccan of cutting the plant in a more immature stage than is customary in Upper India. The inferior variety of ganja known as bhang approaches the description of Dr. Prain's chur in being a coarse powder, but can in no way be compared with the Bengal chur. Bhang is really the refuse accumulating in ganja stores and shops, and contains broken leaves, seeds, etc., and is sold at a much cheaper rate than ganja.

The different hemp drugs are called ganja, bhang, and charas.

3 to 6. Though stray plants are occasionally to to be met with growing in house yards, manure heaps, waste grounds, etc., from seeds accidentally dropped, spontaneous growth of the hemp plant to any extent is unknown in the Deccan districts.

7. Though hemp drugs are indulged in to a certain extent, their use in this presidency cannot be described as being general, except in Sind, where bhang is consumed as a beverage made up in the manner to be described. The hemp plant is therefore cultivated on a very limited scale, as shown in statement A hereto appended. In Gujarat, Surat alone has an appreciable area under hemp, mostly in the head-quarters taluka of Chorasi. The cultivation appears to be chiefly for bhang, Surat being one of the sources of bhang supply to the Bombay market. In the Karnatak hemp is found under cultivation in the neighbourhood of the town of Bijapur. But this cultivation is of recent date, having been introduced in 1887-88. The principal locality of hemp cultivation in the presidency proper is the Deccan, chiefly the districts of Ahmednagar and Satara, where the plant is grown primarily fof ganja for local consumption and for export to Bombay.

In the Deccan the use of bhang is much more limited than that of ganja, and the drug is not separately produced. What is sold as bhang consists of broken leaves with the refuse left in the curing of ganja. Charas, the resin obtained from the hemp plant, is rarely used and little manufactured. Charas is not gathered from the plant as in Bengal. Sometimes, but rarely, in the Ahmednagar district the glutinous substance adhering to the hands and feet of men employed in treading and pressing ganja is scraped off and stored for private consumption, but not for sale. The few persons who, like the Hindu and Muhammadan ascetics and others hailing from Northern India, smoke charas, obtain it from Bombay, which receives its supply of the drug from Northern India, Afghanistan and Yarkand. Hemp is not grown for its fibre.

8. The area under hemp (*vide* appended statement) has been decreasing, tendency being attributed to the restriction imposed upon the disposal of the crop. The area under the crop is recorded, and the crop is watched by the village officers, and it cannot be disposed of without the necessary permit.

Again, as the crop cannot be sold except to the licensed farmer, and as all hemp drugs will not keep good longer than a year, the result is that in some places the crop is not raised unless the purchase is guaranteed previously by a licensed vendor.

9. The hemp plant requires good soil and careful tillage. It does best in medium black soil with a mixture of red soil. The land is prepared as for bajri (*Pennisetum typhoideum*), and the seed is sown in June-July with a three-coulter seed drill, the distance between any two rows being about a foot and a half. The crop is bullock-hoed with a view to loosen the surface soil, to earth up the plants, and to remove the weeds. It is also frequently hand-weeded to keep the land scrupulously clean. When it is about two feet high, the male plants are uprooted and the crop otherwise thinned, to afford sufficient room for lateral growth, which is induced by bruising the stem. This is done by giving it a half twist a few inches above the root. Cultivators are very careful in removing male plants, as a few of them are said to be quite sufficient to fertilize the whole crop of female plants and thus damage the crop. Male plants are therefore searched after until the crop begins to flower. Hemp is liberally manured with farm-yard manure, but rarely irrigated. If the rainfall is deficient, it is supplemented by two or three waterings. The crop becomes ready for harvest in November-December. It is harvested by cutting the flower-heads with about one foot of stalk. These are left to be exposed to the influence of dew on a piece of ground well cleaned and beaten firm specially for the purpose for one night. Next day the cut stalks are heaped in small heaps, with the flower heads towards the centre, and the heaps are trampled and trodden down by men. This process lasts from three to four days, and during it the flowering heads are pressed flat. The ganja is now fit for storage. The heaps are winnowed, and the flowering heads picked by hand are stored in gunny bags. The chaff, consisting mostly of broken leaves and broken flowering tops, are gathered and separately stored as bhang. During the curing of ganja sometimes a little charas is gathered in the manner described in reply 7. Thus at one and the same time all the

three drugs are manufactured. Lengre in the Khanapur taluka of Satara, and Javulke in the Khed, and Jategaon, Mukhai, and Shikrapur in the Sirur talukas of Poona are famous for their ganja.

10. The cultivators who grow ganja belong to the ordinary cultivating classes, but possess the special knowledge required to distinguish male from female plants, and also a knowledge of the curing of ganja.

11 and 12. No information.

13. All the Deccan districts grow ganja for local consumption, but Ahmednagar, Satara, and Nasik also for export; but its area is especially large in the Khanapur taluka of Satara, and the Nagar, Rahuri and Newasa talukas of Ahmednagar. The cultivation once established seems to be maintained by the skill acquired and handed down from father to son. It may also be due to the suitability of soil, dry climate and light rainfall, which are essential for the proper growth of the plant. The extension of the cultivation of the plant in equally favourable parts of other districts is discouraged for reasons stated in reply No. 8. The plant is not likely to produce a large flowering top in the hilly tracts of the Western Ghauts and the Konkan, where the rainfall is excessive.

14. As stated above in reply No. 9, ganja and bhang are manufactured in the places where the hemp plant is specially grown for the purpose to meet local demand and for export to Bombay. Charas is manufactured in the Ahmednagar district only to a very limited extent for private use in the manner described above in reply No. 7.

15. As stated above in reply Nos. 3 to 6, I have no knowledge of the hemp plant growing in a wild state in any of the Deccan districts, and the facts stated refer to the products of the cultivated plant only.

(A) Ganja is not subjected to any special treatment until it passes into the hand of the smoker, who breaks the top into small bits, removes seeds, leaves and foreign matter if there be any. He then places the broken ganja on the palm of his left hand, and pours water over it three or four times till the water is clear, each time kneading it with the thumb of his right hand. This process takes about 10 minutes if it is properly done. By this time the ganja becomes sticky. It is then squeezed with the two hands till the water is pressed out. A small cake is left, from which pieces are broken and mixed with an equal quantity of tobacco, and smoked off in an ordinary native tobacco pipe. Care is taken both to wash and to knead the ganja thoroughly. Insufficient washing leaves a substance which is said to cause coughing, and, if the water is not all pressed out, it will not smoke easily.

(B) Sweetmeats sold under the name of yakuti, majum, shrikhand, and gulkand are made with extract of ganja, which is prepared as follows:— One seer of good ganja is boiled with a seer and a half of water for about an hour, when half a seer of ghi is added, or more if a weak extract is desired. The boiling is continued for two hours more. It is then strained, while hot, through a coarse canvas bag. Thorough straining is effected by tying a rod to the mouth of the bag and twisting the rod round and round. The squeezing causes a separation with the liquid of everything which can be pressed through the canvas, fibrous or woody matter remaining in the bag. This must be done while the boiled mass is still hot; otherwise the ghi will thicken and prevent free flow of the extract. The extract is then kept over night in a wide-mouthed vessel to settle. During the night, by the action of cold, the ghi thickens and rises with the extract of ganja to the surface of water and is skimmed off next morning. To further refine the extract, the skimmings are then boiled till all the water is driven off. The extract is then fit for storage in the earthenware jar for use. To secure greater purity ganja is sometimes soaked in water for a couple of days and washed before being boiled, and the ghi is washed clean with water before it is mixed with the ganja. The extract thus prepared forms the base of all the sweetmeats described below. The ghi used in the preparation of the extract should be full boiled; if half boiled ghi is used, the extract will not keep.

To prepare yakuti, five to eight tolas of ganja extract, according to the strength required, with a quarter of a seer of conserve of roses (rose petals preserved with sugar) are added to a seer of sugar syrup. The mixture is seasoned with one tola of powdered cardamoms and ½ tola saffron, nutmeg, mace, and cloves, each. Sometimes almond kernels peeled off and finely sliced are added. The whole mixture is then poured into shallow brass or copper dishes tinned inside. When it has cooled and thickened, it is cut with a knife into rhomboidal pieces about an inch long, half an inch broad, and a quarter of an inch thick.

Majum is prepared in the same way as yakuti, but without conserve of roses, saffron and cloves. Unless it is specially ordered, majum prepared for retail sale is not generally spiced. It is merely ganja extract and sugar. The syrup used in these preparations is made by boiling to evaporation fine sugar over a slow fire. The syrup is purified by skimming off the impurities which rise to the surface during the boiling.

Shrikhand is prepared by adding the extract in the same proportion as in yakuti or majum to syrup made from gul or undrained sugar.

Gulkand is a mixture of conserve of roses and ganja extract, the extract being mixed at the rate of five to eight tolas, according to the strength required, with a seer of conserve of roses.

Bhang.—When it is not purchased ready prepared bhang as sold in the market is first picked to remove pieces of stalk, pebbles, etc., then washed with water, and then ground into a fine paste, with a few grains of black pepper, on a grindstone. Hindu ascetics prefer a mortar and pestle of nim (*Melia azadirachta*) wood to a grindstone. The paste is then stirred in sufficient water, and the whole is strained through a piece of cloth and drunk either with or without sugar. This is the simplest and cheapest form of bhang for drinking. Those who can afford it add to it ground almond kernels, and flavour it with cardamoms, etc. Well-to-do habitual drinkers purchase raw bhang in quantity, boil it in water for two or three hours, and then wash it clean of all impurities. It is then dried and stored for use. For drinking, it is ground and prepared in the way described above. Some roast their bhang on a frying pan, and wash it before it is ground. Bhang is sometimes boiled in milk. A ball of ground paste of bhang is tied in a piece of muslin and is boiled in milk, sugared and flavoured with cardamoms, etc. The preparation is used by well-to-do occasional drinkers. The bhang as sold in the Deccan markets is not liked by Gujaratis and men from Upper

India, who, when they can manage it, bring bhang from their own parts of the country. When bhang is not procurable, an habitual drinker will make his drink of ganja instead of bhang, but this is rare.

Green leaves of the hemp plant are sometimes made into bhajas, the preparation consisting of hemp leaves, gram flour and spices mixed together in water, formed into small roundish cakes and fried in oil or ghi. Sometimes powdered ganja is used in this dish instead of the leaves. Young and tender hemp plants are also eaten as a vegetable.

Charas requires no preparation before its use. It is simply made into small pills and smoked either with ganja or tobacco, according to the choice of the smoker.

Boja.—This is another intoxicating preparation in which ganja is used, but it is not in common use. It is prepared in the following manner: Two seers of jawari (*Sorghum vulgare*), four seers of dried roots of the jawari plant, one seer ganja, and half a seer nux vomica are soaked together in water for three or four days.

The water is then strained off from the mixture, and the mixture is boiled with fresh water for three or four hours. After careful washing the mixture is dried in the shed and ground to fine powder. The powder is stored for occasional use. When wanted, the required quantity is dissolved in water and the strained water is drunk. The water is neither sugared nor flavoured. Some drinkers prefer to make it stronger by the addition of a pinch of dhatura or nux vomica seed ground to powder.

16. Habitual drinkers who cannot afford to prepare their own bhang at home resort to bhang shops. As the Deccan bhang contains ganja dust, it cannot be prepared everywhere from the plant; but the bhang, which wholly consists of leaves as in Upper India, can be prepared anywhere. I have no knowledge of the wild plant.

17. Ganja is not sold ready prepared for smoking, it being prepared by smokers themselves, as stated above in reply No. 15. Bharg shops for the sale of the ready-made drink are generally kept by North Gujarat Brahmins. Yakuti and other sweetmeats are generally prepared by perfume-sellers who have obtained the necessary license.

18. Ganja, bhang and charas deteriorate by keeping. I have no knowledge as to whether they quite lose their effect in time; but this is certain that the drugs are destroyed after a year or two as being useless. They keep good with ordinary care for a year. The cause of deterioration apparently is the escape of some volatile principle.

19. Ganja by itself is, as a rule, used for smoking, and exceptionally as a substitute for bhang in drinking. The use of ganja in sweetmeats as a vegetable have already been described above in reply No. 15. Ganja-smoking is more prevalent in towns than in villages, and yakuti and other sweetmeats are prepared in towns only. Charas is used in smoking only, and its use is rare.

20. The proportion of ganja smokers is very small, as stated above. The classes who generally indulge in ganja-smoking are Hindu ascetics, gosavis and bairagis, and Muha-mmadan fakirs. Next to them come the artizan classes, both Hindu and Muhammadan. Skilful artizans have a bad name for ganja-smoking, and only a few professional singers, artists, engravers and the like are free from this vice. The use of ganja is so common among such classes that if a master-worker is complimented on his skill, he will in acknowledgment say—"That is only because I prepared the ganja for my master for so many years"—*i.e.*, served so long an apprenticeship. Peons and messengers are addicted to this habit, but not as a class. The cultivating classes are almost free from this vice. They do not use hemp drugs as a stimulant, nor do they use them to sustain themselves under a stress of work. Their belief is that a ganja smoker cannot be a steady worker, and has not the hardness to undergo great labour under heat and sun. An habitual ganja smoker does not stand high in their esteem. Charas is smoked by Pathans, Muhammadan fakirs, ascetics and persons from Northern India, and only occasionally by other people of the Deccan. Ganja sweetmeats, yakuti and others are occasionally used by dissipaters of all communities.

21. In the Deccan the varieties of ganja are not known. Whole ganja is preferred to ganja dust sold under the name of bhang. Those who have used Upper India ganja prefer it to local ganja.

22. Very little charas is used, and such as is used is brought from Bombay, where it is imported from Afghanistan, Northern India and Yarkand.

23. Hard smokers, when they do not get ganja, might be induced to smoke even bhang; but, as a rule, bhang is not smoked.

24. The percentage of bhang drinkers or eaters is insignificant in the Deccan. Habitual bhang drinkers are generally met with among immigrants from Guzerat, Marwar, and Upper India. When they have no time to prepare bhang for drink, they content themselves with eating the paste. Jewellers are habitual bhang drinkers, but they are very moderate in its use. They say it clears their sight and steadies attention, clear sight and steady attention being essential for their trade. Hindu ascetics drink bhang to excess, urging, if questioned, that it keeps them contented and concentrates their attention in prayer.

25. In the absence of carefully prepared statistical information, it is difficult to answer this question either way. But it may here be observed that, among educated classes, the use of bhang is discredited, and more so of ganja A generation or two ago bhang was sometimes served at picnics and pleasure parties among the higher classes; but the place of bhang is now to a certain extent being taken by spirits.

36. It is very difficult to give these proportions. It is said that there are among a hundred habitual consumers of ganja or bhang about ten who indulge to excess.

27. Marwadis may be said all to be occasional bhang drinkers. Ganja smokers are recruited from all classes. Sometimes people contract these habits by using them first as remedies for certain bodily ailments; but among the generality of smokers and drinkers the habit is the result of association.

28. An habitual moderate consumer requires about one tola bhang, worth half a pice, per day; while an excessive consumer may claim to require from 10 to 20 tolas. For a moderate smoker one-third tola ganja, worth a pice, is sufficient for a day; an excessive smoker takes four times as much.

29. Bhang is never drunk without a seasoning of black pepper; but often it is spiced with almonds, or mixed with milk, sweetened with sugar or sugarcandy, and flavoured with some or all of the following articles of the bhang massala: poppy seeds, rose petals, fennel, nutmeg, cardamoms, black pepper and kasni seed (*Cinchorium intybus*).

Ganja is always smoked with tobacco. Instances of ganja being smoked unwashed and without tobacco are very rare. Sometimes, but very rarely, say in one of 500 cases, dhatura or nux vomica is smoked with ganja to increase its intoxicating properties. Among gosavis and bairagis on rare occasions a mixture of dhatura, nux vomica, aconite, opium, arsenic and raskapur (a mixture of the mercurial chlorides) is said to be smoked with ganja or drunk with bhang. When smoked, the mixture is called panchratni chillum, or the bowl containing five jewels; and when drunk, the preparation, panchratni bhang or bhang made of five jewels.

Charas is smoked with ganja or tobacco; when smoked with tobacco it is milder in effect.

30. The consumption of these drugs is practised both in solidude and in company. The well-to-do and the respectable, who value public opinion, generally use these drugs in private. But they will not object to take a few sips of bhang in company of friends, or with a religious devotee of some reputation. The poor and the idle generally meet at a temple or some other public place and indulge in these drugs. Sometimes they meet at the house of a well-to-do smoker or drinker who can afford to stand treat and does not object to their company. Such places of meeting are called "ganjacha akhada" or "bhangecha akhada" as the case may be, and the ganja smoker is called a 'ganjekas' or 'ganjad' and the bhang drinker 'bhangya' or 'bhangad'. The use of these drugs is chiefly confined to the male sex, only a few women, always those of loose character, using ganja and bhang. Boys are not known to indulge in these drugs. The use of ganja sweatmeats is more general; but even these are not eaten by children.

31. The habit of using these drugs is not so easily formed as that of tobacco; for ganja and bhang cannot be used in secret without the knowledge of elders, as both these drugs require some special treatment before their use. Besides, ganja emits a strong smell and at times nauseates the novice. The habit is not very difficult to break off, the uneasiness lasting only for a few days. There is not a greater tendency in the case of these drugs than in other narcotics for the moderate habit to develop into the excessive.

32. Bhang, being considered favourite of the god Shiva, is drunk on the Maha Shivaratra, the fourteenth day of the dark fortnight of the Hindu month Magh (February-March), and on Mondays of the month Shravan (July-August), all these days being sacred to that deity. It is also drunk during the Shimga holidays, the Saturnalia of the Hindus, when more or less indulgence—nay even license—is allowed. These holidays fall in the month of Phalgun (March-April). In Bombay, on the Ramnavami holiday (the birthday of the god Ram, falling on the ninth day of the bright half of the month of Chaitra, corresponding to April-May), in some of the Ram temples of the Prabhu community, a weak drink of bhang, prepared with milk, sugar, and almonds, and flavoured with the bhang massala, is served out to the members of the community who come to worship at the temples. It is taken more as a cooling drink than as an intoxicant. The use is not considered essential, nor is it excessive. It is not injurious or likely to lead to the formation of the habit.

33. The consumption of any of these drugs is considered disreputable, and the public holds a bad opinion about the person who habitually indulges in any of them. The person is considered unsteady, idle, quarrelsome, and as being an associate of bad characters. I am not aware of the hemp plant being worshipped; but bhang prepared as for drinking is incessantly dropped on the god Shiva either in fulfilment of a vow or on high festivals in honour of Shiva. It is put in an "abhishekapatra," a vessel with cone-shaped bottom perforated through the apex, and the vessel is held over the head of the idol either by the votary himself or by the priest in his behalf, and mantras or sacred verses in praise of the god are recited as the bhang water drops on the head of the idol.

34. It would be a serious privation to Hindu and Muhammadan ascetics, and to a less degree to artizans and professional singers and musicians, to forego the consumption of the drugs. They are accustomed to the use of some intoxicant. The ascetic class will not give up hemp drugs and drink spirits readily, for spirits are forbidden by religion, and spirits cost much more.

35. It would be practicable to prohibit the use of all these drugs. The cultivation of the hemp plant can be thoroughly controlled, as is done in the case of poppy cultivation; but the prohibition cannot be enforced without occasioning serious discontent among the consumers. The ascetic classes who form the major portion of the consumers and who consider the use of these drugs necessary for the fulfilment of their vows of celibacy and devotion would resent such prohibition. And the lower orders of people, on whom the ascetics have still a considerable hold, will view an attempt at prohibition as an unnecessary interference with their religion. They will also take it as proof of the current belief that Government, if not actually encouraging, is at least conniving at the spread of alcoholic drinks. The prohibition will be followed in certain cases by recourse to alcoholic stimulants and other drugs. Though the religious devotees will not take to liquor drinking, they certainly will have recourse to dhatura smoking and nux vomica eating, the indulgence in these drugs not being forbidden by religion. These drugs are more pernicious than any of the hemp drugs. The poor classes also, owing to their cheapness, might take to the use of these drugs to satisfy their cravings for stimulants, if they are forbidden the use of any of the hemp drugs.

36. The costliness of alcoholic drinks serves as a bar to their use as a substitute for bhang or ganja among poor people; but, on the other hand, religious prejudice against liquor drinking is wearing way. There is no direct proof to show that the hemp drugs are being supplanted by alcohol, the only thing observed being that there are now-a-days more drunkards than ganja smokers or bhang drinkers.

37. Both ganja and charas produce immediate intoxication; but that produced by charas smoking lasts longer and is more harmful.

38. The three different kinds of ganja are not known here; but it is said by North India men that chur is much more intoxicating than the Deccan ganja.

39. The smoking of ganja and charas is considered more injurious than bhang drinking, though it takes a longer time to take effect, and its influence lasts longer. Many moderate smokers of ganja and charas are said to suffer, though slightly, from chest affections, such as cough and asthma, in old age. Again, ganja and charas smoking is said to have caused insanity oftener than bhang drinking.

40. These drugs are sometimes used by themselves in empiric treatment and in combination with other drugs by native doctors.

Bhang forms an ingredient in the massala or condition balls given to horses and cattle.

41. The moderate use of ganja or bhang, combined with highly nourishing food, is said to be beneficial in its effects. It improves digestion and alleviates fatigue. It is sometimes used as an alleged preventive of disease in malarious and unhealthy tracts, ganja smoking for this purpose being not quite unknown in the lower ranks of survey subordinates, whose work causes much exposure to unaccustomed climate. The use is very moderate and occasional.

42. In the absence of proper nourishment, even the moderate use of these drugs is considered more or less injurious.

43. Moderate consumers are inoffensive to their neighbours.

44. The immediate effect of ganja on a habitual but moderate smoker is said to be refreshing and only highly intoxicating. It is said to create appetite. Bhang takes longer time to operate, but its ultimate effect is similar. The duration of influence varies with the quantity used. Habitual but moderate consumers do not acknowledge any bad after-effect. The want of subsequent gratification is said to cause longing, listlessness, depression of spirits, heaviness of limbs and loss of appetite, and to disturb digestion.

45 and 46. There is no reason to suppose that habitual moderate consumers, when properly fed, suffer either in body, mind, or morals; but excessive consumers may suffer both in body and mind, and certainly do suffer in morals.

47 and 48. There is nothing to show that the habit of consuming hemp drugs is hereditarily transmitted, or that there is any special tendency, apart from association and example, for children of even immoderate consumers to become addicted to the vice.

49 and 50. The moderate use of bhang or ganja is practised as an aphrodisiac, and some prostitutes are said to practise it. The use of these drugs for this purpose is more harmful than ordinary narcotics, as it is likely to lead to sexual excesses. The excessive use of these drugs is said to cause impotence, and it is urged by vowed celibates among religious mendicants that they use the drugs to weaken sexual desire and aid them in fulfilling their vow.

51 and 52. Undoubtedly dissipated consumers of hemp drugs associate with bad characters and may be thus led to crime; but there is nothing to show that their vice prompts criminality.

53 and 54. No knowledge.

55. There are instances of people having been robbed after they had been designedly stupefied with ganja.

56. The effects of the hemp drugs are often intensified by the addition of dhatura, opium or nux vomica. Cardamoms smoked with ganja are said to increase the intoxicating effect of the drug.

57. Charas is not known either to be eaten or drunk in the Deccan. Ganja, as stated above in reply No 15, is rarely drunk as bhang, and in that case it is more intoxicating than bhang.

58 to 70. I am not sufficiently acquainted with the present system of excise administration of the presidency to suggest any improvement in it.

A.

Area under Bhang and Ganja (Indian Hemp) in the districts of the Bombay Presidency, including Sind, during the last eight years, from 1885-86 to 1892-93.

No.	Districts.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
	A.—Presidency Proper.								
	I.—*Gujarat.*								
1	Ahmedabad	...	...	...	...	...	...	...	...
2	Kaira	...	...	...	...	...	...	...	...
3	Panch Mahals	...	...	...	...	...	...	...	...
4	Broach	...	...	...	1	...	...	...	1
5	Surat	2	7	17	7	17	10	3	17
	II.—*Deccan.*								
6	Khándesh	311	44	14	35	54	39	9	10
7	Násik	29	15	7	12	10	10	20	27
8	Ahmednagar	1,030	789	637	268	830	605	676	382
9	Poona	18	41	30	16	2	17	10	15
10	Sholápur	43	34	26	23	57	48	55	48
11	Sátára	411	558	173	170	368	471	317	299
	III.—*Karnatak.*								
12	Belgaum	...	...	...	...	2	...	...	...
13	Bijápur	...	...	...	1	1	1	3	13
14	Dhárwár	...	...	...	...	...	...	...	...
	IV.—*Konkan.*								
15	Thána	...	...	...	...	...	...	...	...
16	Kolaba	...	...	...	...	...	...	...	...
17	Ratnágiri	...	...	...	...	...	...	...	...
18	Kánara	...	...	...	...	...	...	...	...
	Total A.	1,844	1,488	904	533	1,341	1,201	1,093	812

Area under Bhang and Ganja (Indian Hemp) in the districts of the Bombay Presidency, including Sind, during the last eight years, from 1885-86 to 1892-93—continued.

No.	Districts.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
	B.—Sind.								
19	Karáchi	...	120	90	117	116	61	49	65
20	Hyderabad	Not available.			13	18	17	21	3
21	Shikárpur				171	297	133	75	236
22	Upper Sind Frontier				...	...	...	...	...
23	Thar and Párkar				...	...	...	...	...
	Total B.	...	120	90	301	431	211	145	304

50. *Evidence of* Mr. G. P. Millet, *Divisional Forest Officer, West Thana, Thana.*

1. I have had no opportunities. I have, however, sought for information since the receipt of these questions.

2. Yes; charas is not available, though the name is known. Chur is also called *bhuka* (Deccan).

3. It grows to a certain extent in the Deccan spontaneously.

5. Requires good soil and moderate rain.

6. Dense.

7. Considerably cultivated in the Ahmednagar district, (*a*) for ganja, (*c*) for bhang, (*d*) for seeds, not for (*b*) charas, or (*d*) fibre.

9. The land is ploughed in the usual manner, and the seed sown broadcast. When the plants are ready (full grown and flowering), they are plucked up and stacked for a few days. (This information is by hearsay only.)

10. Any of the Kunbi class will cultivate the hemp in the Deccan.

11 and 12. No.

13. (*a*) Yes. (*b*) Excessive rainfall would prevent its cultivation in the Konkan.

14. Ganja and bhang are prepared to a considerable extent in the Ahmednagar district, and in the Poona district.

16. It cannot be prepared by people in their houses.

17. Parsis sometimes take contracts, but the actual preparation is always made by people of the Brahmin, Banya and Kunbi classes.

18. All the drugs deteriorate with keeping. The effect is quite lost if the drug is kept two years. The cause does not appear to be known, and no special measures can be taken to prevent deterioration.

19. Ganja is not only smoked but also used in preparations having a narcotic tendency. It is used in certain kinds of confectionery made in Poona and Bombay, etc., and known as majum, yakuti, shrikhand and gulkand.

20. Ganja smoking is resorted to by all classes of people, but principally by bairagis, sadhis, gosavis, hakims and men of the mendicant class throughout the district.

21. The flat ganja.

22. Charas is not used in this district.

23. Practically not. It is said that poor people sometimes use it for such purpose.

24. Most well-to-do people of all classes drink bhang, principally in the hot weather, and throughout the Deccan.

25. The extent of the use appears to be stationary. People who take to alchohol generally cease to drink bhang.

26. The large proportion of the consumers are habitual moderate consumers.

27. All classes.

28. Excessive consumers generally smoke in a party, and a party of five men would consume about 2½ tolas of ganja per day, valued at 2½ annas. Moderate smokers would consume about 3 pies worth per day when smoking alone.

29. Tobacco is occasionally mixed with ganja for smoking. Dhatura is not used here.

People make a bhang massala to flavour the drinking water, etc., mixing with the juice of the leaves of the plant, black pepper, aniseed, almonds, mace, cardamoms, rosebuds, sugar, etc.

30. Generally consumed in company, except by gosavis. Not consumed by women and children.

31. Easily formed by being in company with other smokers or drinkers. It is difficult to break off. There is not a tendency for the moderate habit to develop into the excessive.

32. They are generally used more on fasting days, especially at the time of the Maha Shivaratra.

33. Educated people do not consider the moderate use of the drugs in any way degrading.

36. Alcohol is to a certain extent taking the place of ganja smoking.

39. Drinking is probably less injurious than smoking.

40. Sometimes, but not generally. Used in cattle disease (the drugs, *i.e.*, bhang and ganja).

41. (*a*) Ganja is digestive; also increases appetite.

(*b*) Probably not.

(*c*) Would have a beneficial tendency in a malarious climate.

42. Not beneficial. Probably harmful, affecting the brain.

43. Yes.

44. Refreshing; creates appetite. Lasts about twelve hours. Leaves a feeling of lassitude.

58. I have no such acquaintance.

60. The cultivation of the ganja plant should be more restricted.

61. Not produced.

62. By restricting cultivation, and farming the contracts at high rates, the prices of the drugs would be enhanced and consumption would tend to decline.

65. The taxation is unknown to me.

66. In my opinion it should be taxed at one rate for all qualities and kinds.

68. Yes; in every town. Such houses and sheps are necessary, but should be well looked after by the police or other authorities.

---

51. *Evidence of* Lieutenant-Colonel J. Humfrey, *Inspector-General of Police, Poona.*

Oral evidence.

Question 1.—I have been Inspector-General of Police for three years. I have served for twenty-seven years almost entirely in Guzerat and Kathiawar as Assistant and District Superintendent of Police. I have recently returned from England, and have not had time to study this subject. My evidence will be based on impressions gathered during my service.

Question 51.—I do not think that a large proportion of bad characters are habitual consumers of the drugs. The bad characters in the towns are for the most part given to drink, and commit petty offences to satisfy their propensity. This is not the case in the country. I have no reason to suppose that the hemp drugs are largely consumed by the bad characters of the towns. The class who consume the drugs are chiefly the mendicants, and the drugs are not more consumed by the bad characters than by other people. I think the hemp drugs used in moderation have no connection with crime in general or crime of any particular class.

Question 52.—Nor do I think that excessive use of the drugs is connected with crime in general. But I have heard of rare instances of a man under the influence of bhang "running amuck." Only one instance has come under my personal observation. That was in 1884. The man when caught said bhang had been given to him; but we had no means of testing the statement, as he had been concealed in the jungle for some days. A private in the 23rd Regiment Native Infantry was suspected of theft, and his house was put under attachment and a police constable posted over it. The sepoy saw this, and, instead of returning home, went to a friend's house in the lines. He said that bhang was given to him there in sherbet by a person who had ill-feeling against him. He then got a rifle and some rounds of ammunition from a comrade's house and wounded the police constable who was posted at his house. He then went to the open country, and as he passed the hospital he fired two rounds at two doolie-bearers who were asleep outside. Two days afterwards he was arrested in the country concealed in a field. His rifle was then loaded and he attempted resistance; but the rifle was at half-cock, which he did not notice in his excitement. Three or four of us then overpowered him. He gave the name of the person who had given him the sherbet when he was under trial in the Sessions Court. The Judge gave him one day's imprisonment, apparently believing the story he told; but on appeal to Government the man was sentenced to seven years' rigorous imprisonment. None of the wounded persons died. I don't think the man said anything about the bhang having been given to him till he got into the Sessions Court. I do not think the bhang caused him to commit the crime. I think it was established that the man had taken bhang; and if he did take it, the crime was committed within half an hour afterwards. I think the Sessions Judge recorded a finding on the point of the man having been drugged. I did not notice the state of the prisoner's eyes when he was arrested. I don't recollect the man's name. The case occurred at Ahmedabad in 1884. I think the man broke out under the initiation of the insult of having his house attached, and had taken no bhang at all.

Question 54.—I have not heard of criminals fortifying themselves with the hemp drugs in order to commit crime.

Question 55.—I know of no case of a person having been drugged with hemp in order to commit a crime upon him. I was on special duty for suppression of dacoity in Kathiawar from 1870 to 1873, in 1875, 1876, and from 1886 to 1890, and no case of the kind came under my notice.

The drugs have never attracted attention in connection with the discipline of the police force. I receive returns of all punishments inflicted on members of the police force, including dismissals. I hear many appeals against all kinds of punishments. The particulars of the offence for which the man is punished are reported for each case in the monthly statement. Drunkenness would be mentioned; and if an offence arose out of intemperance of any kind, that intemperance would almost certainly be entered. I have often seen drunkenness noted, but never intoxication from hemp drugs. When a man is enlisted, he is examined medically by the Civil Surgeon, and enquiry is made regarding his character by the Superintendent of Police through his Inspector, or by reference to other districts. I have never received a report that a recruit was a ganja smoker. I think it is probable that a District Superintendent of Police would reject a ganja smoker; and I should, in my ignorance of the effects of the drug, prefer to avoid enlisting such a man. I should not reject a tobacco smoker. I was inclined to think ganja was more harmful than I am now led to believe after reading the proceedings of the Commission. It is the popular idea that ganja is very harmful. I do not think the use of the drug is common in the police force. I have never learnt that a member of the force was a ganja smoker. I have never had any experience as a Superintendent of a jail. The general bad opinon attaches to bhang also in an equal degree—perhaps even more to bhang than to ganja. I can't say from whom I have derived this idea. Probably the cases of "running amuck" of which I have heard have given me the idea. There are about 16,000 or 17,000 men serving under me. I believe bhang consists of the buds of the ganja with the exudation attaching to them. I had never seen the drug until I sent for some quite recently.

Copy of Judgment appended to Colonel Humfrey's *evidence.*

The prisoner in this case, according to his own statement, arranged with another sepoy at 8-30 P.M. to meet him at about 10 P. M.

with a view to shoot a police constable who had been placed on guard over the prisoner's hut. He was taken to the quarter-guard by order of the Subadar, and it was on his way thither that he made this assignation with Bhima, who was conducting him. At about 11 P.M. he got away from the quarter-guard under a false pretext and met Bhima as they had previously arranged. Then he went into the hut of another sepoy who was absent, or whom he thought to be absent, and stole from it a rifle and cartridges. He loaded the rifle and fired at the policeman, and he wounded him severely on the hand. The prisoner then ran away. As he was retiring, the rifle was discharged a second time. This implies that it had been reloaded, even if we accept the prisoner's statement that it went off accidentally. To this account the prisoner adds that he was instigated by Bhima after the latter had given him some sherbet, from the effects of which he says he felt intoxicated. He thought he had been drugged. But the sherbet was drunk even before he was taken to the Subadar's. The alleged intoxication did not prevent his making the appointment with Bhima as he was taken from the Subadar's to the quarter-guard. Nor did it prevent his bearing the appointment in mind and contriving by a false pretext to keep it. It is impossible therefore to suppose, whether a drug had been administered to him or not, that he was so affected by it as to prevent his knowing what he was about or the ordinary consequences of his acts. He must, especially as a soldier, have known that to fire a bullet at the policeman was an act so imminently dangerous that, if it took effect, it would in all probability immediately or mediately cause death. Fortunately it did not cause death, but it did cause hurt. Had death been caused, the prisoner would undoubtedly have been punishable for murder. As it is, he is, for the attempt carried so nearly to completion, subject to punishment under the second part of paragraph I of section 301 of the Indian Penal Code. The crime he has committed is one of the gravest character, since military lawlessness is the most serious of dangers to society. We must therefore sentence the prisoner to be transported for seven (7) years, which sentence will be concurrent with that which he is already undergoing under the sentence of a Court Martial.

---

52. *Evidence of* MR. H. SCANNELL, *Superintendent, Great Indian Peninsula Railway Police, Poona.*

Oral evidence.

Question 1.—I have been Superintendent of Great Indian Peninsula Railway Police for two years and a half and have twice acted as Inspector General of Police, for a year and quarter altogether. I have been twenty-five years in the Police, and served in all three divisions of the presidency.

Question 51.—The proportion of ganja consumers among bad characters is not, I think, greater than among the population generally. I refer to the moderate consumers of the drug. The question has not been made the subject of careful enquiry. I do not think the moderate use of the drugs has any connection with crime of any sort. I do not think that the excessive consumers of the drugs form a larger portion among bad characters than among the general population. My experience of excessive use is confined to criminal lunatics. I cannot recall any case in which the excessive use of the drug has led to unpremeditated crime. I do, however, remember a case of a man committing murder in a state of madness in the Dharwar district about 1885. I think the man is still in the asylum. I cannot recall any other case. I am not aware that criminals use the drugs to fortify themselves to commit crime. I cannot call to my mind any case in which the drugs have been so used. I have no recollection of any case in which these drugs were used to stupefy victims. There are about 600 men in the Great Indian Peninsula Railway Force. The drugs have never come to notice in connection with any offences or breaches of discipline in the force. There may have been such cases, but I cannot recall any. There have been many cases of men having been drunk from liquor on duty, and been punished on that account. In enlisting a man enquiries are made, as full as possible, regarding his history and character. Special enquiry would not be made regarding the existence of the ganja habit. I think I should refuse to take a man whom I learnt to be an habitual smoker of ganja. A man is generally enlisted when he is young and such a habit acquired early in life would very likely increase. I was in charge of a district in 1889. A lunatic who is violent and dangerous is confined by the police and sent up to the Magistrate with a report. The report is not on a printed form. The facts which are considered important are whether the man is violent or dangerous to others or himself, whether he is unable to take care of himself and has no one to look after him. We do not generally enquire into the causes of insanity. The police are not required to make enquiry on that point, and the report is not bound to mention it; but as a matter of fact, the cause is generally discovered, though not by formal enquiry. If discovered, the fact would be mentioned. The relations and friends, if found, would probably give the information to the Chief Constable who was making the enquiry about the insane's residence and friends. The Chief Constable would generally make the enquiry at a taluka; the Head Constable in a petha. Any police officer might make the enquiry, but the matter would be conducted by the Chief Constable. Any police officer might be deputed to make the enquiry, but the Chief Constable might and would probably verify it. The Chief Constable would probably call in the relatives and make general enquiries which would cover the point of cause of insanity. There is not, as far as I know, any printed form or instructions to guide the enquiring officer, nor does he hold formal enquiries. He simply hears what the people say. I think a Chief Constable or other police officer of ordinary intelligence would accept the cause as ganja smoking if it were alleged. I have never heard, so far as I remember, of a Magistrate sending back the reports in a case of lunacy for further enquiry regarding the lunatic's history or other matters. The report is simply an explanation of the police action in the matter. I do not know

if the report is used for the purpose of filling up a printed form. I have never heard of ganja as being the cause of cases of intoxication on the Railway. I have never had to deal with smuggling of the hemp drugs in the Railway. The ganja shops are, with the liquor shops, closed during the Moharram, but that is the only occasion on which the precaution is taken.

53. *Evidence of* Mr. R. W. E. H. Vincent, C. I. E., *Officiating Commissioner of Police, Bombay.*

Oral evidence.

Question 1.—I am Acting Commissioner of Police in Bombay. I have been over twenty-nine years in India and twenty-five years in the Police. I have served in eight or nine different districts in Sind and the presidency proper. I have been five or six years in the town of Bombay off and on.

Question 51, etc.—I do not think that any large proportion of bad characters are habitual moderate or excessive consumers of hemp drugs. The only connection of the drugs with crime is the crime of violence—runing amuck—attributed to the excessive use. I have heard of such a case, but never seen one. I had a case of the kind once, but could not verify the alleged connection with hemp drugs. I have therefore no adequate ground for asserting any such connection between hemp drugs and this class of crime. There is no other connection between the drugs and crime that I am aware of. Nor do I know of any case in which the hemp drugs have been administered to facilitate crime, though I have often known of dhatura being used — between forty and fifty cases in the last two years. Several convictions have been obtained in such cases against two gangs which we have been after for years.

I made special inquiries at the time of the recent Bombay riots as to whether there was any increase in the use of hemp, and I am satisfied that it was not so. We shut up liquor and drug shops for the Muharram; because excited people sometimes fly to liquor and intoxicants, and it is better they should not have them. I have seen casual disturbances near liquor shops, but never near ganja shops.

Question 45.—Including the Ramusis I have about 2,400 men under me in the force. In Bombay I have never had occasion of knowing that men smoked, except in the case of two old jail birds who were detectives. The habit seemed to produce laziness and untidiness: a stupid, lazy, slovenly appearance. I suspected them from their appearance and was told that they had the habit. These men were not under strict discipline. So there was no offence against discipline on their part. They were rather 'cute detectives, and I had not to dismiss them. The habit did not interfere with their work. They were both Muhammadans. The effects of the drug have never forced themselves on my notice at all in regard to the Bombay police force. I know of no case in my experience, either as Commissioner or Deputy Commissioner of Police. In Sind I have had to get rid of men, because they were habitual ganja-smokers. I was told this. I did not discriminate between different forms of the drug. They were got rid of because they were idle and slovenly, and took no interest in their work. There might be three cases in my six or seven years in Sind as Deputy Superintendent of Police. In the districts I held, the force varied from 900 men (in Shikarpur) to 1,500 (Karachi). As regarded these men they were hereditary smokers. The father in one case took opium and hemp, and even European liquor. He was father of two of the men employed in the force who followed his example. They were good enough men with no tendency to crime, but they were devoid of interest in their work. I think their ruin was due to ganja, not liquor, though I was told they took liquor also. Charas and bhang have not been specially brought to my notice. But, as I say, the different forms of the drug were not distinguished until recently. If I knew that a man habitually took ganja, even moderately, I should not keep him; so I would also not have a man who was a moderate liquor drinker. You never know where a native's "moderation" will cease. The danger of his going on to excess is great in both liquor and ganja; the man has broken away from the ordinary moral restraints under which a native usually lies. If he were a Bhil, I should think differently of the case; it is the custom of the Bhils to drink. If a class is habitually given to intoxicants, my feeling would not be so strong regarding a man of that class, but I should prefer the non-consumer of intoxicants, unless (as in Khandesh) I were compelled to take consumers. My aversion in regard to hemp drugs is due rather to fear of the unknown results that might ensue than to any experience I have had of evil results. It is also due to a certain extent to the ill repute of hemp drugs. Punishments for drunkenness are more frequent, but are also very rare indeed.

Those who chiefly use the drugs are sadhus, bairagis, and fakirs. They would be annoyed by prohibition and would go to some other means of securing the oblivion they desire. They might take to dhatura, of which the effects are more dangerous and more lasting. If they could get it cheap enough, they might take to liquor.

I have seen much of the people, especially when I was a subordinate officer. The effects of the drugs are not considerable, and I believe that any interference in the way of prohibition would appear needless and cause great discontent, but would not have serious political results. I also think that it would be unnecessary, though I think there should be more supervision and control than at present. The shops should not be closed, but should be supervised and controlled, because, as in the case of liquor shops at home, bad characters are wont to assemble there. It is a mistake to close them. It does not decrease consumption, but it takes the consumers away from police supervision.

54. *Evidence of* MR. H. KENNEDY, *District Superintendent of Police, Ahmednagar.*

1. Have questioned my subordinates and persons acquainted with the cultivation and sale of hemp drugs; also those who are addicted to their consumption.

2. Yes, the definitions are correct, but round ganja is not known in this district, nor is chur, but bhusa or ganja dust is known and is somewhat equivalent to chur. It is exported to Europe, and is also used occasionally in place of bhang, having a milder effect. Ganja bhusa or ganja dust, charas, and bhang are all known, the latter when taken in the form of a beverage being also known as ghota (the common term here) and thandai.

3. In the Nagar district only. Talukas Nagar, Karjat, Newasa, Rahuri, Kopergaon, Sheogaon, Parner, Shrigonda. Abundant in the first three.

4. Male plant is generally called bhangera; female plant ganja. The latter is also known as green tobacco. All refer to the same plant.

5. Wild hemp is apparently unknown. It does grow, however, as I have a male and female plant in my compound, from which I gather it grows elsewhere, though I have not seen or heard of it.

6. There is a kind of ganja which is known as ran ganja, but this term is only applied to ganja that depends upon the rainfall, as distinct from well water or irrigation, for its cultivation.

7. (*a*) Yes.

(*b*) Charas is also produced in the picking and preparation of the plant for ganja; but it is not produced specially for consumption; or, if so, it is surreptitiously so used. At Maka, taluka Newasa, and at Kamargaon, taluka Nagar, it is cultivated for seed purposes.

(*c*) and (*d*) Yes.

8. The plants grown exclusively for seed purposes are known as bhang plants, because the best bhang comes from them.

9. Garden land and black soil are best for its cultivation. A plentiful supply of water and careful manuring required; also ploughing and harrowing. One man required to watch every three bigas of land cultivated, for weeding. The male plant has to be carefully eliminated when cultivating for production of ganja. One male plant will sterilise a whole field of ganja.

In cultivating for seed purposes the female plant is eliminated.

10. The ordinary cultivator class. Some Brahmins grow the hemp also.

11. Not known, but probably not as far as this district is concerned, as wild hemp is not known. The result would probably be spurious ganja.

12. No, so far as this district is concerned.

13. A permit has to be obtained for the preparation of ganja but not for the cultivation of the hemp plant—*vide* answer to question 9.

The Akola and Sangamner talukas being in parts rocky would not be suitable for the cultivation of the hemp plant to any great extent.

14. Yes, everywhere where the hemp plant is cultivated, but chiefly Nagar.

Charas can be procured direct from the cultivators if wanted, but is not prepared ordinarily for consumption.

15. The hemp plant grows to about the height of a man. Ganja, when plucked, has to be left to dry; it is then trodden, again left to dry and again trodden, before it is fit to use. When required for consumption, it is well washed and pressed, the cleansing process being frequently resorted to. In fact, the oftener it is washed the stronger it becomes. It is then mixed with dry tobacco and smoked, the admixture bringing out its effects. If smoked in the crude state, it is said to produce cough and chest affections. It is also eaten with salt, pepper, and ghee, called fakki, when mixed in this way. It can be, but is never, eaten by itself; pepper is a *sine qua non* if nothing else is mixed with it. Ganja is also made up into sweetmeats. When required for this purpose, it is put into a pot of water boiled, and then some ghee is added. The water is boiled away, and the ganja-impregnated ghee remains, and is mixed with other ingredients, such as sugar, kuskus, almonds, and spices of sorts. It is then said to be highly intoxicating, and its effects last a longer time. When made up into sweetmeats, it goes by the names of majum, gulkand and yakuti, for which preparations a license to sell is required. Ganja is also sometimes but rarely mixed with water and drunk, but never neat. Pepper is always mixed with it. In this form it is called ganja ghota. Bhang is sometimes eaten, but almost always taken in the form of a drink, in which case it is called ghota, also thandai. The leaves of the seeding hemp plant called bhang plant make the best bhang. They are used just as they are picked. First they are baked or heated, and then put into a pot of water to boil. The water is then strained off. The residue is well washed, and the result is ghota. Like ganja, the more it is washed the stronger it gets. When thus prepared, it is taken with water, milk and sugar. When mixed with other ingredients, it is well ground, washed, and strained. The liquid only is taken. Charas is never or very seldom taken by the people of the district. It is used by foreigners. It is merely the glutinous substance that adheres to the hands and feet of those who pluck and tread the hemp plant while preparing it for ganja. The substance is scraped off the hands and feet, and made up into little balls or plugs of a black colour, pieces of which are taken and smoked with dry tobacco.

To summarise. Ganja is invariably smoked, bhang is used as beverage, both being capable of consumption in the form of sweetmeats. Charas, when used at all, is invariably smoked.

16. Bhang is generally prepared by the people in their houses. It can be prepared from the hemp plant wherever grown. It is also prepared at *quasi*-public places, such as temples, dharmsalas, and places set apart for the purpose.

17. Cultivators of the hemp plant, sweetmeat sellers, and those who consume the preparations.

18. Ganja keeps for two years, gradually deteriorating in strength. Bhang for one year, gradually deteriorating in strength. Charas will keep for about a year, after which it loses its effect. It gets dry within that period, and has

to be warmed up before use. Ganja and bhang in course of time get dried up and crumble to dust.

19. Yes, but ganja can be either eaten or drunk as already explained.

20. People of all castes smoke ganja. Opium eaters chiefly indulge in charas smoking and foreigners, up-country men.

21. The flat or trodden kind is the only one known in this district. Ganja dust or bhusa used to be thrown away as useless, but it is now exported to Europe. It is also occasionally taken in place of bhang, being milder in its effects.

23. No.

24. Bhang not eaten as a rule, except when made into sweetmeats.

Marwadis chiefly, but also Pardesis, Bhatias, Gugan, and bairagis indulge in bhang-drinking.

25. It is difficult to say, but probably the use of these drugs is not on the increase. The use of alcohol is gradually spreading among the classes that would be disposed to indulge in these intoxicants. Bhang-drinking only may possibly be on the increase, if anything.

26. As regards ganja and bhang, one chatak of the drug per diem is considered moderate, two chataks excessive. At this estimate probably 20 per cent. are moderate and 10 per cent. excessive consumers. The rest probably do not take either, or only so occasionally that no distinction can be drawn between them and non-consumers.

27. Gosains and bairagis are the chief consumers of both ganja and bhang. Muhammadans, fakirs chiefly for ganja only, Marwadis bhang only. Force of example leads to the practice.

28. (*a*) One chatak, costing one to two annas.

(*b*) Two chataks, costing two to four annas.

29. *Vide* answer to question 15. Dhatura is not used. The object of the admixtures is to make the drug palatable and to strengthen its effect. Bhang massala consists of kuskus, almonds, black pepper, rose petals, etc. No separate preparation kept ready made.

30. Children never indulge; women rarely except the prostitute class. Ganja smoking chiefly confined to prostitutes and the lower classes, both in solitude and in company. Bhang drinking common to all classes. Marwadi women sometimes drink bhang. Respectable women take neither bhang nor ganja.

31. Easily formed, but not so easily given up. Like tobacco smoking, it develops from the moderate into the excessive in course of time. Can be given up like smoking, but would be felt more severely.

32. Bhang drinking is indulged in at Marwadi marriages. Sometimes Brahmins at dinner parties and other convivial occasions take it with gram fried in ghee. It is not an essential part of the ceremony or feast in either case. It is taken in moderation, and is neither injurious nor calculated to develop a habit in this way.

33. Both ganja smoking and bhang drinking are looked down upon if habitually indulged in. They give a man a bad name. Bhangili or gotebaz and ganjedi or ganjebaz are terms of reproach for those who habitually indulge. Habitual takers, if otherwise respectable men, are ashamed to admit their failing. There is no religious objection to the drug in either form. The hemp plant is not worshipped.

35. It would be feasible to prohibit, but not to entirely stop the use of these drugs. They would assuredly be consumed illicitly. Prohibition could not be thoroughly enforced, and would certainly cause discontent, which would amount to a serious embarrassment, if not a political danger. If forbidden in any shape or form, recourse would be had undoubtedly to alcohol, and also to opium.

37. Charas smoking is said to be stronger and more injurious than ganja smoking. Produces headache. Ganja is said not to.

38. None but flat ganja known in this district.

39. Ganja smoking takes effect at once, and is said to be a more injurious form of taking the drug than either eating or drinking it. Bhang is always drunk. In this form not so strong as when eaten. Is taken more as a refreshing beverage, and chiefly in the hot weather.

40. Both ganja and bhang are said to be recommended by native doctors for diarrhœa, dysentery, and piles. It is not known to be used in the treatment of cattle disease.

41. (*a*) and (*b*) Yes.

43. Yes.

44. *Vide* answer to question 41. Both ganja and bhang produce intoxication if too freely taken. Their consumption in moderation does no harm, and is supposed to increase the appetite. Effects of bhang drinking last four or five hours, unless taken in excess. Effects of ganja smoking last an hour or two. Of eating and drinking, some four or five hours. The appetite for these drugs has to be periodically gratified, or longing and, to habitual excessives, even uneasiness would ensue.

47. No.

48. Apparently has some effect on the progeny. Father of fourteen and an habitual excessive smoker here has only three children living. Looks a very emaciated specimen himself.

49. Prostitutes are said to use ganja and bhang as aphrodisiacs, but this is doubtful. Majum and yakuti (sweetmeats containing ganja and bhang) mostly taken by this class. They are commonly believed to produce impotence if indulged in to excess. Bairagis are supposed to take these drugs freely to kill the desire for sexual intercourse, but this use of the drugs is extremely doubtful.

Moderate use of the drugs causes no apparently noxious effects, though the excessive use does in the course of time.

51. It is generally found that bad characters are either habitual or moderate consumers of bhang and ganja. Taken, as bad characters are, from the lower orders who are the most likely to indulge in these drugs, this is only natural. The moderate use of the drugs leads to abusive and quarrelsome conduct.

52. Indulgence in these drugs (ganja and bhang) would, in the case of a novice make him too intoxicated to commit crime. A moderate but habitual consumer would, if he were to indulge to excess, probably rave and become excited, and would be ready to commit any crime of violence that first came into his head. If he had a particular grudge against any one, it would quicken his impulse and determination to commit some act of violence against that person.

The excessive use of the drugs to an habitual excessive consumer would in the end cause idiotcy and insanity.

53. I do know of a case in which a sepoy of a Biluch regiment, when under the influence of ganja or bhang—I forget which it was—ran amuck and shot at anyone he came across, killing and wounding various persons. It is believed that in cases of this sort, sepoys generally prime themselves with ganja or bhang before proceeding to the execution of some project they have probably been brooding over. Jealousy regarding women is no doubt the most usual and primary reason for such outbursts, but ganja and bhang play their part in fortifying to the point of committing crime, and generally, if not always, it ends in an act of violence.

54. Yes, very often.

55. Complete stupefaction can be induced by either ganja or bhang without admixture. Criminals very often stupefy their victims in order to further their designs on them. Prostitutes are often robbed in this way.

56. The effects of hemp used either in moderation or in excess are not supposed to be modified by admixture with other substances, to an appreciable extent. They are rather intensified.

Dhatura is not used so much now in this part of the country for stupefying so as to facilitate crime. Some 10 or 15 years ago cases of this kind were known in the district. When dhatura is so mixed, it causes complete stupefaction for a long time.

57. Ganja and charas, when taken too freely, or even by a novice in moderation, have much the same effect, causing excitement, raving, determinates inclination to violent crime, talkativeness, abuse, insolence, etc., when taken in excess, torpor, giddiness and complete stupefaction, rendering the subject helpless. Taken in extreme moderation they produce a soothing and satisfying effect. They are used to some extent as anæsthetics and are never known to be fatal in excessive quantities, though they cause extreme prostration.

---

55. *Evidence of* Mr. J. E. Down, *District Superintendent of Police, Satara.*

1. Conversation with consumers, with sellers, and from information gathered in connection with official duties.

2. Yes. By the names given.

7. Yes, 336 acres, 13 gunthas. From the plant, ganja, charas and bhang and seeds are made and extracted, but this plant is not cultivated for these purposes separately. Cultivation of the hemp plant is chiefly carried on in the Khanapur taluka and at the village of Lengri. The area under cultivation in that taluka is 286 acres, 26 gunthas; and in the other talukas as follows:—

Walwa . .	13 acres .	10 gunthas.
Khatao . .	25 „ .	... „
Tasgam . .	1 „ .	17 „
Khoregam .	10 „ .	26 „

8. There has been no recent considerable increase or decrease in area under cultivation.

9. Black rich soil is required for the cultivation of the plant, which is deeply ploughed and manured in May. Seed is obtained from Nagar district and sown in July in lines, distant apart 1½ feet. After fifteen days the crop is thinned, and a month later weeded. If there is lack of rain the crop is watered every fifteen days, and is reaped about November. It is then trodden under foot, and made up in bundles.

10. No special class.

11. Not in this district.

12. The so-called wild hemp is nowhere cultivated for the production of ganja in this district.

13. It is only restricted to the extent that the cultivator has to obtain a permit to enable him to dispose of his crop.

14. Yes; *vide* answer to question No. 7, chapter II.

15. Ganja is prepared by the pods and leaves being collected and trodden under foot, while in a green state, for three or four days. When dried they are separated from the pods by winnowing. The residue is bhang. Charas is the resinous matter issuing from the plant which sticks to the hands and legs of the labourer at the time of treading the ganja. Ganja is used for smoking by soaking it in water for a few minutes, it is then rubbed for a short time in the palm of the hand, it is then mixed with ordinary tobacco and smoked. Charas is used for smoking by first heating on fire, then rubbing flat on hand with water, then smoked with tobacco. Charas is not drunk. Bhang is drunk with water, cardamoms, aniseed, milk and sugar after being well mixed and is called ghota or kusumb. Wild ganja is not used.

16. Bhang is prepared by the people who use it in their houses or elsewhere. It can be prepared from the hemp plant wherever grown.

17. The preparations are not made by any particular classes, but those who use it.

18. Ganja and bhang deteriorate if kept, after a year or so, the chief cause being damp and rot. Damaged ganja is said to give cough. No special measures to prevent deterioration are taken, but it is said that merchants mix old and damaged ganja with the fresh when selling.

19. Ganja and charas are generally used for smoking only, but charas is very little used in this district.

20. By all classes and in all localities. Roughly between 5 and 10 per cent. of the people may be said to smoke ganja.

21. Flat ganja is preferred to round. Poor people who cannot afford the flat get chur.

22. Charas when used is the local produce.

23. Bhang is sometimes used for smoking when ganja is not to be had.

24. Bhang is not eaten, and is very little drunk habitually.

25. The use of ganja is said to be on the increase. Can give no reason.

26. It is impossible with any degree of accuracy to give proportions, but it may safely be said that the greater proportion of ganja smokers are moderate consumers.

28. The habitual moderate smoker may be said to consume about 1 tola a day, the cost per tola being about half a pice.

29. Tobacco is ordinarily mixed with ganja and lessens its effect. Dhatura is very occasion-

ally used to give ganja a more intoxicating effect. Bhang massala is unknown here.

30. It is not usual for children to consume these drugs.

31. The habit of smoking ganja is easily formed and is difficult to break off. There is a tendency for the moderate habit to develop into the excessive, but this is by no means a natural result.

32. There is no custom here, social or religious, in regard to the consumption of the drug.

33. The habitual consumer of the drug is generally regarded as degraded and not much trust or confidence can be reposed in such a person.

34. To the habitual consumer the foregoing of the drug would be a serious privation, as his health would suffer thereby and he would lose his energy, appetite, and digestion.

35. It would not, in my opinion, be practicable to prohibit the use of ganja. It would lead to much discontent and means would be found to obtain and consume it illicitly. I cannot say the discontent would amount to a political danger. The prohibition would, in some cases, probably be followed by a recourse to alcoholic stimulants, or other drugs.

36. No.

38. The smoking of ganja is said to have a longer lasting intoxicating effect than the other two.

40. Is sometimes prescribed by native doctors as a febrifuge and for dysentery; also for cattle or horses having colds.

41. Those who use it appear to think that the moderate use of ganja has beneficial effects as a digestive. The use is not restricted to any particular class.

42. The moderate use of ganja does not appear to be altogether harmless. It seems to produce coughs, and a weakening tendency if consumed habitually.

43. Yes.

44. It appears to produce a sort of pleasant intoxication. It does not allay hunger but promotes it. After the intoxication stage, which lasts generally from three to seven hours, the consumer feels languid and dull. The want of subsequent gratification produces desire for it.

45. The habitual moderate use of ganja and bhang appears to impair the constitution and produce chest affections. It induces laziness, and probably impairs to some extent the moral sense. It probably deadens the intellect, but I have no personal knowledge of any instance where it produced insanity.

46. The habitual excessive use of the drug might probably eventually produce insanity.

47. No.

49. Prostitutes sometimes use the drug to produce a mild intoxicating effect. The use of hemp is said to produce impotency.

51 and 52. No.

53. I can recall no case in which it has led to temporary homicidal frenzy.

54. I have never heard of such use being made of it by criminals.

55. Such instances are not known in this district.

56. By the admixture of dhatura intoxication is increased, and decreased by mixing with tobacco.

57. Neither ganja nor charas is eaten or drunk here.

63 and 64. No.

68. There are thirty-four shops in this district having licenses to sell ganja.

---

56. *Evidence of* MAJOR T. R. M. MACPHERSON, *District Superintendent of Police, Poona.*

1. None in particular.

2. Dr. Prain's definitions may be accepted for this district. Each of the products is locally known by the same names.

7. Hemp is cultivated in a few places in the Indapur, Shirur, and Khed talukas of this district. Charas is not used here. The other products are collected.

10. They form no special class, but are the ordinary agricultural cultivators.

13. The cultivation is not restricted to any particular part of this district.

14. Ganja and bhang are prepared in the Indapur, Shirur, and Khed talukas.

17. There is no special class.

18. They do deteriorate. They keep good for about two years. Damp is the chief cause of deterioration.

21. Flat ganja is preferred for smoking.

22. It is not generally used in this district.

23. It is not used for smoking.

30. The consumption of these drugs is chiefly confined to the male sex.

35. (*a*) No.

(*b*) It would be consumed illicitly.

(*c*) It could not be enforced.

(*d*) Yes.

(*e*) Possibly.

(*f*) Probably to both, if the prohibition could be enforced.

43. Yes.

51. (*a*) No.

(*b*) No connection whatever.

53. It is said to. No. I know of no case.

68. There are licensed shops.

69. No; the wishes of the people are not consulted before opening shops.

---

57. *Evidence of* Mr. F. T. V. Austin, *District Superintendent of Police, Surat.*

1. From personal observation in different parts of the presidency and in Sind, in which province it is extensively used.

2. The definitions given by Dr. Prain may be generally accepted as correct. Bhang and its preparations are known in Gujarat as bhang or subji, maya, vijia, and Shiva's butti. Charas is known by that name, but is not sold or used in this district. Ganja is the name given to the dry flowering tops of the female plants. Flat or chepta ganja is also sold, but round ganja is not specially prepared.

3. The hemp plant, so far as I know, does not grow spontaneously in any of the Gujarat districts. It it said, however, to grow wild in the Palanpur Superintendency.

7. Hemp is cultivated to a small extent in this district for use as bhang, from 20 to 25 acres being under cultivation in the Chorasi and Olpad talukas.

8. There has been a decrease during recent years in the acreage under hemp cultivation in this district. In 1889 some 30 to 35 acres were so cultivated in the Chorasi taluka alone; but the cultivators not being able to sell it to the licensee it had to be destroyed, as they cannot otherwise dispose of it.

9. Yellow loam or sandy soil is the best. It does not grow well in black soil. The ground requires to be well ploughed and frequently harrowed, and all clods broken, and the growing crop to be well weeded. The male plants, called bhangro, are also uprooted. Two crops are obtainable in the year, but not on the same ground. The kharif crop is said to contain more narcotic properties than the rabi.

10. The cultivation of hemp is not restricted to any particular class of cultivators.

11. Not that I am aware of.

13. Hemp is not cultivated for ganja in this district, or in any part of Gujarat, so far as I know.

14. Bhang to the extent of 150 to 200 maunds is produced in this district, but neither ganja nor charas is prepared.

15. Bhang is prepared as follows:—After the plants are cut down they are allowed to dry for some days. They are then tied up in bundles and beaten on the threshing floor in order to separate the seeds and leaves from the stalks. The seeds and powdered leaves are then passed through a sieve for the purpose of removing the small bits of broken stalk.

16. Bhang is generally prepared by people in their own houses. By this I mean the preparation of the bhang as drunk from the bhang sold in the shops and not the preparation of bhang from the plants themselves. Bhang can be prepared from the plant wherever grown, I believe, and so also can ganja, but I cannot say whether ganja and charas can or cannot be prepared from the wild plant.

17. By no particular class as regards the preparation made in this province.

18. Bhang deteriorates and loses its narcotic properties if kept for more than about 12 months, and, if allowed to get damp, gets mildewed and useless much earlier. Keeping it in closed receptacles and free from moisture will retard this deterioration for a few months. The placing of mercury in open vessels among the bhang is said to prevent it from getting worm-eaten.

19. In this district ganja is used only for smoking; charas is not obtainable.

20. The smoking of ganja is not restricted to any particular class; but it is chiefly so used by the lower classes, and specially by fakirs, sadhus, bairagis, etc. I do not believe that anything like 5 per cent. of the people of this district smoke ganja.

21. Flat ganja is much preferred. Broken ganja, called kani or chur, is said to contain less narcotic properties and to cause cough. Round ganja is generally used in the Deccan, and chur or broken ganja in Sind.

22. Charas is not used in this district.

23. Not that I am aware of.

24. Very few people eat bhang. About 5 per cent. of the population of this district, made up from persons of all classes, drink bhang. I doubt if even 1 per cent. eat it.

25. The use of ganja and bhang is, if anything, on the decrease in this district, and probably throughout Gujarat. The decrease in the use of ganja is mainly attributable to its increased price, which prevents the very poorest classes from using it to the same extent as formerly, and the decrease in the use of bhang is owing to the increasing disinclination of the better classes to take the necessary trouble in preparing it, and to the more general use of liquor, especially the cheaper sorts of Europe spirits.

26. *Ganja.*—Assuming that 3 per cent. of the people of this district smoke ganja, which is probably over the mark, then of habitual moderate consumers there might be 2½ per cent., of habitual excessive consumers 0·50 per cent., occasional moderate consumers 1½ per cent., and of occasional excessive consumers 0·50 per cent., and the same percentages would fairly represent the proportion of bhang drinkers falling under these several descriptions.

27. While the smoking of ganja is more generally confined to the lower classes, no such limitation applies in respect to the drinking of bhang, and although the habitual use of it is deemed disreputable, the occasional indulgence of the habit is not looked upon as degrading.

28. *Ganja*—

Habitual moderate consumer, 1 to 1½ pies worth.

Habitual excessive consumer, 3 to 4 pies worth.

Bhang—

Habitual moderate consumer, 2 pies worth.

Habitual excessive consumer, 3 to 6 pies worth a day.

29. *Ganja*—

(*a*) Tobacco is ordinarily mixed with ganja for smoking, the ganja being first washed to cleanse it from impurities.

(*b*) Sometimes ganja is washed in rose water and cardamom seeds added. Dhatura is not, so far as I know, so used. Sometimes a chillum is made from a piece of sugarcane, and ganja so smoked is said to have an increased intoxicating effect; but the chief reason for the admixture

of other ingredients is to give the ganja a more agreeable flavour.

The ingredients ordinarily mixed with bhang are pepper and poppy seeds, while those exceptionally so used are sugar, rose buds, almonds, pistachios, fennel seed, cardamoms. The admixture of dhatura seeds is very exceptional. The object of these additions is to render it more palatable. Bhang massala is a conserve of rose buds, almonds, cardamoms, pistachios and certain aromatic seeds, which is specially prepared and sold for mixing with bhang.

30. Among the lower classes who are addicted to smoking ganja or drinking bhang, both are generally practised in company, and while among the better classes the smoking of ganja is considered disreputable, the drinking of bhang among one's friends is not so regarded. Both practices are almost altogether confined to the male sex, and it is very unusual, indeed, for children to be allowed to indulge in either of these drugs.

31. The habit of either smoking or drinking is easily formed, but its discontinuance, except by excessive consumers, is not difficult. There is a tendency, especially as regards ganja, for the moderate use to develop into the excessive.

32. In the worship of Shiva on the Maha Shivaratri a preparation of bhang is sprinkled over the Shivalingam and some placed in a vessel before it as an offering, which is afterwards distributed among the people present. I cannot say whether this custom is essential, but it is the usual practice, and the large number among whom the bhang is distributed prevents its excessive consumption on such occasions. The use of bhang on such occasions is hardly likely to develop into a habit, as many of the worshippers, especially those not addicted to its use, drink only as much as they can hold in the palm of the hand.

33. Smoking of ganja is generally regarded as disreputable; but the same cannot be said of the moderate use of bhang. Possibly the fact that ganja smoking is more generally confined to the lower classes accounts for its being so considered by the well-to-do, and a respectable person who would not mind his friends knowing that he occasionally used bhang would, in case he had acquired the habit of smoking ganja, be very careful to keep it a secret. The hemp plant, so far as I know, is not an object of worship.

34. It would be a serious privation to fakirs, sadhus and habitual smokers to be compelled to forego the use of ganja, and the same remark would apply to the habitual drinker of bhang, though not to the moderate consumer. Habitual ganja smokers would, I think, suffer from indigestion if the practice were suddenly abandoned.

35. I do not consider that it would be possible to prohibit the use of any of these drugs, unless the growth of the hemp plant be entirely prohibited; but any such stringent measure would certainly cause discontent, and it might possibly amount to a political danger, as the time-honoured practices of fakirs, sadhus and other more or less venerated individuals who have the ear of the people, especially of the lower orders, would be interfered with. Any such prohibition, even if it were possible, would lead to an increased use of liquor and of other drugs.

36. I think that the use of alcohol is gradually taking the place of bhang among the better classes of consumers in this part of India. This is probably due to the increased facilities, especially in towns, for obtaining cheap foreign spirits, the importation of which has very largely increased during recent years.

37. A greater degree of intoxication is produced by charas than by ganja.

38. Flat ganja is supposed to have more intoxicating effect than round ganja or chur.

39. The habitual smoking of any preparation of hemp is, I consider, more injurious than the eating or drinking of bhang. The continued, though moderate, use of ganja appears to dry up the natural fluids, and to prematurely age and give a haggard appearance to the consumer; whereas no such marked changes are, as a rule, noticeable in the moderate bhang drinker.

40. I am unable to say whether any of these drugs are habitually prescribed by native doctors, but bhang is supposed to possess valuable medicinal properties, and to be useful in cases of gonorrhœa and remittent fever. Bhang and ganja are sometimes administered to assist the digestive organs and also for the cure of colic.

41. (*a*) Ganja smoking in moderation assists digestion.

(*b*) Yes.

(*c*) The moderate use of ganja is supposed to be beneficial in the prevention of fever and in reducing the ill-effects likely to follow the habitual use of bad water; while from bhang a cooling drink is prepared which is said to be very beneficial in intermittent fever.

Bhang and ganja are so used by the poorer classes, both habitually as also occasionally.

43. Yes, so far as I have observed.

44. The immediate effect of ganja smoking is a greater or less degree of intoxication, whereas some time elapses before the bhang drinker arrives at that stage, and both have a temporarily refreshing effect. Ganja smoking creates appetite, or more correctly speaking voracity, which, if habitually fully appeased, leads to digestive troubles. The duration of the effect of either smoking or drinking ganja and bhang depends to a great extent on the constitution of the consumer, but with a moderate dose should not last more than about two hours, and there remains a certain amount of drowsiness after the intoxication has passed off. Want of subsequent gratification produces longing and uneasiness, but to a greater extent in the case of the ganja smoker than in that of the bhang drinker.

45. The habitual moderate use of ganja has a tendency to impoverish the constitution unless the consumer is accustomed to nourishing food, and though, when first indulged in, it increases appetite, it ultimately, I think, impairs the digestive powers, and in many instances causes asthma. It induces laziness, but not immorality; and, while it deadens the intellect, does not, if used in moderation, cause insanity. An immoderate use of ganja causes temporary insanity, and after recovery the same symptoms may be reinduced by a return to the immoderate use of it.

Bhang.—The habitual moderate use of bhang is not supposed to impair the constitution, nor does it affect the digestive organs like ganja. It does not cause dysentery, bronchitis or asthma, but induces habits of laziness, and possibly of immorality. It does not, however, deaden the intellect or produce insanity.

47. No.

48. I do not think that the habitual excessive use of these drugs is likely to become a hereditary habit, or to affect to any great extent the offspring of such consumers.

49. I do not think that ganja is used as an aphrodisiac, though bhang and majum probably are. Majum is sometimes so used by prostitutes. Doubtlessly, if so used, the effects would be more injurious than if used as an ordinary narcotic. The excessive smoking of ganja induces impotency, and it is used for this purpose by sadhus.

51. Not so far as I am aware of, and I don't think that there is any general connection between the habitual moderate users of these drugs and any particular class of criminals.

52. Neither do I think that even the excessive use of any of these drugs has any connection with any general or special class of crime.

53. Excessive indulgence does, I consider, incite to unpremeditated violence, though not to crime. Habitual ganja smokers are, when under the influence of the drug, inclined to be quarrelsome, and, if interfered with, to commit acts of violence.

54. So far as my experience goes, these drugs are not used by criminals preparatory to committing premediated crime, for increased cheerfulness and good humour, followed by drowsiness, is the effect generally produced.

55. I do not think that the preparations of hemp are so used, though complete stupefaction can be induced if they are partaken of in large quantities by persons unaccustomed to them.

56. The effects of ganja are modified by admixture of tobacco and of bhang by the use of different massalas, while excessive habitual users mix dhatura seeds with both ganja and bhang.

58. The present system is working well, and I have no suggestions to offer as to its improvement. Only one license for the retail sale of ganja and bhang, and another for their exportation are issued, and cultivators can only sell their crops to one or the other licensee.

60. Ganja is not made from the hemp grown in this district or in any part of Gujarat, so far as I know.

61. Charas is not prepared in this part of India.

62. The cultivation of hemp is controlled in this district, as also in the other parts of the presidency, inasmuch as the cultivator has to take out a license, and though the license does not specify the amount which may be grown, the extent to which it is cultivated is limited to the quantity he can induce the licensees to purchase at a remunerative rate. All not so disposed of has to be destroyed.

63. I have no objections to offer to the present system.

64. No.

65. Yes.

66. I do not consider it desirable to have different rates of taxation for the different kinds of ganja.

67. None.

68. Neither in this district, nor, as far as I know, in any district in Gujarat, are any shops licensed to sell these drugs to be consumed on the premises. Ganja and bhang are sold in twenty-two shops in this district, eight in the city of Surat and fourteen in the different talukas, and the annual sales amount to about 30 maunds of ganja and 40 of bhang.

69. The wishes of the neighbouring shopkeepers are not, so far as I know, consulted before the issue of a license for the sale of these drugs, and as they are not consumed on the premises, no objection is ever raised, and I do not consider that local public opinion should be in any way considered, for these preparations of hemp are very often sold by grain sellers, tobacco shopkeepers, etc., and their sale is no more likely to be objectionable to the neighbouring shopkeepers or to the public than the sale of any other commodity.

70. This district is much intersected with Gaikwari territory, and prior to 1892 both bhang and ganja were to some extent smuggled from the State; but the introduction of the license system into the Baroda State has almost entirely prevented this smuggling; and to this is also due the increase in the sales of ganja and bhang in this district during the past as compared with former years.

---

58. *Evidence of* Mr. Dhanjisha Dadabhoy, *Parsi, District Superintendent of Police, Thana.*

1. Nothing beyond my own observation and the little experience ordinarily obtained.

4. It is known by the name of ganja plant, and refers to exactly the same plant.

It grows generally in the Satara and Ahmednagar districts and soon after the rainy season.

6. It is scattered.

7. *Vide* No. 5.

8. I cannot say.

9. I am not acquainted with the method of its cultivation.

11. I do not know.

14 and 15. (*a*) Ganja is the leaves of ganja tree. Seeds are found when it is dried. When the seeds are sown they produce the bhang plants. Ganja is used only for smoking. The plants are called *nar* and *mada* (male and female). *Nar* is bhang tree and *mada* ganja tree.

(*b*) Charas is the gum of bhang tree, and is also used for smoking.

(*c*) Bhang plants grow when ganja seeds are sown. Bhang is used for drinking only.

16. Bhang can be prepared by the people in their houses, and it can be prepared from the hemp plant, wherever grown. Ganja can, but charas cannot.

17. Specially Hindus.

18. They do after some time; and no measure can be taken to prevent their deterioration.

19. Ganja and charas are used for smoking and also for medical purposes in rare cases in India and other countries.

21. Flat ganja and chur are used for smoking and drinking respectively.

22. Foreign charas is chiefly used, and it is imported from Arabia and Persia.

23. No.

25. It is on the increase, it seems, in consequence of increase of population.

27. Ganja and bhang are used by a majority of Hindus, and charas by a majority of Muhammadans and a few Hindus.

29. Ganja is mixed with tobacco, and bhang with massala containing khaskas, black pepper, rose flower, sugar, elachi and badam. Charas is mixed with tobacco and sometimes with ganja.

30. In company and between the years of twenty and forty. It is not usual for children to consume any of these drugs.

31. The habit is easily formed, but it is rather difficult to break off. There is a tendency in the case of any of these drugs for the moderate habit to develop into excessive.

34. There would be no serious privation to consumers to forego the consumption of the drug they use.

35. It would be feasible to prohibit the use of any of these drugs. It would be consumed illicitly if procurable. The prohibition could be enforced by forbidding cultivation. The prohibition would occasion for a time a slight discontent which would not amount to political danger. Half the number only would have recourse to alcoholic stimulants or other drugs.

'36. Yes, on account of change of fashion.

37. Charas is stronger than ganja.

38. No.

42. Harmful.

43. I think so.

44. It does produce intoxication.

51 and 52. Yes. The plans of crimes are generally concerted either with the use of ganja, liquor or opium, according to the districts in which the use of these articles preponderates. They never meet to plan an offence without some such things being used at the time.

53. Yes, I think. No.

54. Yes.

55. Yes, in some cases. Complete stupefaction can be induced.

---

59. *Evidence of* Mr. T. G. Foard, *Superintendent of Police, Cambay.*

1. The answers to questions furnished by me are based on information received from consumers of the drug and others. The hemp plant is not cultivated in this State, nor does it grow spontaneously, and, as far as I have been able to ascertain, it is not cultivated in the province of Guzerat.

2. Charas is not used in any form in this State, nor is it imported by the vendors of the drug. Occasionally visitors bring small quantities of it for their own use. Habitual ganja smokers prefer it to ganja when procurable. I have seen charas, and it is generally smoked in Bombay by consumers of the drug, who usually prefer it to ganja, as its narcotic properties are said to be stronger than ganja. There is only one kind of ganja used in this State, *viz.*, flat ganja. No such name as "chur" is known in this State. The only names by which the narcotic articles obtained from the plant are known in this State are subji, bhang, ganja and charas. The flower tops detached from the twigs, whether by accident or deliberately, are called ganja.

3. I have never seen the hemp plant growing spontaneously in any district of which I have experience; occasionally an odd tree or so may be found near the haunts of fakirs or sadhus, but they are very rare. The presence of these trees is accounted for by fakirs and sadhus, who say that seeds discarded when preparing ganja for smoking germinate.

4. The wild plant is not found in this State, and the only information I have been able to obtain on this point is from gosains, sadhus and fakirs, who know it by the name of "jungli ganja."

5 and 6. I am unable to furnish any information on this point, as the wild plant does not grow in this province.

7. There is no cultivation of the hemp plant in this State, and, as far as I have been able to ascertain, I believe it is not cultivated throughout the province of Guzerat.

8. The plant is not cultivated in this province.

9. I am unable to give any methods of cultivation.

10. There are no cultivators of the plant in this province.

11. There is no cultivation of the plant in this province.

12. I have no personal knowledge of the cultivation of wild hemp, and no information can be obtained on the subject here.

13. The cultivation of the hemp plant is not prohibited in this State.

14. Ganja is not prepared in this State, as defined in paragraph (2) of the accompaniments by being rolled or trodden under foot. The only ganja used in this State is flat ganja, and is said to be prepared from the cultivated plant. Charas is not prepared here, nor is it imported. Ganja and bhang are imported.

15. The only preparation ganja or bhang undergoes here is for eating or drinking. See paragraph 19.

16. A decoction is made from bhang generally by people in their houses, and is known here as bhang-ka-pani, bhang or subji. The wild plant is not procurable here, but I have been given to understand by fakirs, sadhus, and gosains, who are habitual consumers of the drug in all its forms, that bhang can be prepared from the wild plant wherever grown. Ganja can also be prepared from the wild plant wherever grown. Fakirs sadhus and gosains, when travelling, use it, but they prefer the cultivated plant when procurable.

17. The decoction referred to in the preceding paragraph known as bhang-ka-pani is made by all classes in their houses in the hot season. It is also a social custom in Guzerat among all classes of Hindus to make this decoction on festive occasions, and it is lavishly supplied by the host to his guests. The custom is much the same as amongst the Rajputs and people of Kathiawar, who give their guests a decoction of opium called kasumba.

18. Ganja and bhang deteriorate by keeping. With ordinary care both will keep good for about two years. I am unable to say whether it quite

loses its effect in time. There are different opinions on this point. It, however, deteriorates to such an extent that no consumer of the drug, whether by eating, drinking or smoking, will buy old ganja or bhang if he can possibly get fresh, and the fresher the better he likes it, as its effect is said to be stronger. The only cause of deterioration that I know is dampness. If ganja or bhang be kept in a damp place or get wet by rain, it immediately deteriorates, and in a short time becomes absolutely useless. The only measures adopted by the vendors of the drug, who keep it in large quantities, is to keep it in a dry place and occasionally expose it to the sun.

19. Charas, I believe, is only used for smoking. Ganja is eaten in various ways. It may be eaten alone, or mixed with food. It is generally eaten here and throughout Guzerat in two ways, *viz.*, majum and fakki. The following are the ingredients used in the preparation of majum. For one seer of majum, two seers ganja, one seer and a quarter of ghee, and one seer of sugar. The following is the process of preparation of majum. Two seers of ganja or bhang are pounded to dust and tied up in a cloth and soaked in water for three days, after which it is well washed several times until it does not discolour the water. It is then put into about 3 gallons of water and boiled for about three hours. One seer of ghee is then added to the water whilst boiling. After the ghee is added, the whole is boiled for about four hours. The water and ghee are then strained through a cloth and the ganja thrown away. The water and ghee are allowed to stand for two days, and when the ghee congeals and floats to the surface of the water, it is skimmed off. About quarter seer of fresh ghee is then added to the ghee impregnated with the essence of ganja or bhang, and the whole is again boiled. Whilst boiling one seer of fine sugar is added, and the whole is boiled for about half an hour. It is then poured into a shallow dish and allowed to congeal, and when cold, is cut into slices of various shapes. The average quantity of majum for an adult is from one to two tolas. Some are of course able to take more, but if taken to excess it produces intoxication. Majum made from bhang is not so strong as that made from ganja. There is a far greater demand for majum during the rainy season than any other time. There is only one man licensed to sell it. His sales for the year amount to about 4 maunds or 160 lbs. It is sold at ten annas per seer. It is used on festive occasions, but rarely used habitually. It is principally used by building contractors, who give it to their labourers, men and women, when making concrete roofs or floors to houses. This accounts for the singing invariably heard when men and women are engaged on such works. The object of administering it to labourers is said to be to stimulate them, and give them energy for their work. It is often made much stronger than described above. The licensed vendor usually keeps in stock a quantity of ghee impregnated with the essence of ganja, so if he gets an order for majum, he can supply it at short notice by simply adding fresh ghee and sugar to it. This ghee, which is called ganja-ka-ghee, will keep good for about a year if kept in a cool place. The following is the recipé for fakki and its mode of preparation. Ingredients—ganja 1 seer, ghee ¼ seer, 1¼ seer fine sugar, khaskhas or poppy seed ½ seer, carraway seeds ¼ seer. The ganja is first well washed until it does not discolour the water and then exposed to the sun to dry. It is then fried in the ghee until the agglutinated substance dries, and the ganja crumbles into dust when rubbed between the fingers. The sugar and other ingredients are then mixed with the ganja, but are not fried. Fakki can also be made with bhang, but is usually made with ganja. Fakki is sold at ten annas per seer. The habit of eating majum and fakki, I believe, obtains throughout Guzerat.

20. Charas is rarely smoked here, except by occasional visitors. The people who usually smoke charas are gosains, sadhus, fakirs and mendicants. About one per cent. of ordinary members of society smoke ganja. They rarely smoke it in their houses, but usually resort to the haunts of fakirs, sadhus and gosains. There are some who smoke the drug surreptitiously. Hindu and Muhammadan smokers are in about equal proportion. The former seek the company of sadhus and gosains, and the latter fakirs, when they want to indulge in the drug, though it is not unusual for a Hindu to have his smoke at a fakir's tuckiya, and a Muhammadan with a sadhu or gosain. No caste prejudices are observed in the use of the ganja "chillum."

21. Flat ganja only is locally consumed. People who have travelled through India say that they prefer round to flat ganja, but the local residents have no idea of its properties.

22. Charas is not used here, nor is it imported for general consumption.

23. Bhang is never used for smoking here.

24. Mostly all natives in the city of Cambay, of all castes and creeds, with the exception of Parsis, use bhang in moderate quantities during the hot season; but the habitual consumers of the drug, whether by eating or drinking, would be about one in a thousand.

25. The annual consumption of bhang and ganja does not seem to fluctuate. The average sale of the former for the past three years is approximately two maunds or eighty lbs., and the latter twenty-five maunds or one thousand lbs. The licensed vendors of these drugs keep no account of their sales.

26. No idea can be formed as to the proportion of habitual moderate consumers, habitual excessive consumers, occasional moderate consumers, and occasional excessive consumers. There are three licensed vendors of these drugs in this State, which has a population of 89,722. The sales of these vendors amount in the aggregate to about 35 maunds of ganja and about 5 maunds of bhang annually. In the city of Cambay, which has a population of 31,390, there is one vendor whose aggregate sales amount to about 25 maunds of ganja and about 3 maunds of bhang. He says he has about 175 regular customers, who may be either habitual, excessive or moderate consumers. The sales of the other two vendors, who have shops in villages, amount in the aggregate to about ten maunds of ganja and two of bhang. These figures include sales to travellers, visitors, and people of the surrounding foreign territories, who are not restricted from purchasing any of these drugs in Cambay limits. I may add here that ganja and bhang are much cheaper in Cambay territory than in the surrounding British and Baroda territories.

27. Habitual excessive consumers are mostly fakirs, sadhus, gosains, and mendicants of various denominations, who wander from place to place, and have no worldly cares. Smoking the drug appears to be a great solace to them in their solitary

moments. The habits of life of these people are too well known to need recapitulation. Occasional moderate consumers belong to all classes of society, and no community can be specifically particularized as being more addicted to the use of these drugs than others. The habit of smoking these drugs is usually contracted from sadhus and fakirs. Hindus reverence their sadhus and gosains, and in order to ingratiate themselves into their good graces are always ready to perform little offices for them. The preparation of the ganja pipe comes within the category of such offices, and when prepared they are invariably asked by the bawa to light it, from which the habit is usually contracted. The same remarks apply to Muhammadans, who invariably contract the habit from fakirs in the same way. The habit of smoking ganja is also propagated to a certain extent by ordinary members of society, who smoke it in their houses, and who always appear willing, and in fact anxious, to initiate novices into the use of the drug for the sake of company.

28. The average cost per diem to habitual moderate smokers of ganja is one pice. The cost to habitual excessive smokers of ganja is from six pice to two annas per diem. The habitual excessive smokers are mostly sadhus, gosains, and fakirs. The majority of these people renounce the world and its pleasures. The supply of the drug is practically no expense to them. When once a sadhu, gosain, or fakir establishes himself in a place, he is visited by his caste-fellows, who supply the drug and other necessaries of life. The cost to the moderate consumer of bhang, if taken without ingredients, is about half a pice. To the excessive consumer, from one to two pice. Bhang is drunk without ingredients by the poor classes, but those who can afford it use milk and spices with it.

29. Ganja is usually smoked with tobacco and sometimes with gooraku. Dhatura is not mixed with the drug for either drinking or smoking. Ganja is said to be mixed with oil extracted from dhatura seed for external application to the genital organs in cases of impotence. The habitual consumers of bhang of the poor classes drink it without admixtures. Those who can afford to do so add the following ingredients to make it savoury and palatable, but with no other object:—Milk, poppy seed, dried rose buds, cardamoms, cashew-nuts, almonds, sugar, black or white pepper, nutmeg, carraway seeds, cucumber seeds, and charoli. The abovementioned ingredients are called "bhang-massala." These ingredients are not sold mixed with bhang; people making bhang buy them separately and use them in quantities according to taste.

30. Ganja is rarely smoked in solitude unless surreptitiously. Smokers of the drug invariably prefer company. The pipe or chillum is handed round to each person who takes two or three inhalations and passes it on to the next person, and when the pipe is exhausted, it is refilled and passed round until all are satisfied. There are some people who do smoke the drug in solitude, but very few. No respectable female members of society smoke ganja or charas. The wives of fakirs sometimes smoke ganja or charas, and also some depraved members of society smoke it. The habit of smoking ganja, when once acquired, is usually continued till death. There are exceptional cases in which people have broken off the habit. Children are never allowed to smoke the drug in any form here. When they have attained the age of ten years, they are allowed to drink bhang occasionally in small quantities during the hot season and on festive occasions. Females of the lower classes only, such as machis, mawchas, maynas, pomlas, dheds, and bhangis drink bhang.

31. The habit of smoking ganja is easily formed, as described in paragraph 27. The effect to a novice is usually most noxious. It produces intoxication, but if persisted in, these after-effects are overcome in time. It is decidedly difficult to leave off smoking ganja or charas, and there is a tendency for the moderate use of the drug to develop into the excessive. There are of course lots of consumers who can limit themselves to a certain quantity and rarely exceed it. In the case of bhang it is quite different. The occasional moderate use of bhang is not so likely to develop into the excessive or become habitual.

There is not so much difficulty experienced by habitual consumers to break off the habit as with smokers of ganja or charas.

32. It is a social custom in Guzerat to use bhang on festive occasions, such as caste dinners, weddings and certain religious festivals. It is not incumbent on the host to supply his guests with bhang, and in some communities the habit of drinking bhang publicly is in disrepute, although all classes use it in their houses. Kusumba, a decoction of opium, is substituted for bhang by well-to-do classes; and the more lavishly this is supplied by the host, the better he is thought of by his caste-fellows and friends. Kusumba is much dearer than bhang, and there are many who do not care to use it, but will drink bhang without hesitation. The worshippers of Mahadev, Shankar, Shiva and other deities, on certain religious festivals, propitiate these gods by besmearing the idols with bhang. This does not form an essential part of the "puja," but it is a recognised custom. Many who do not use it in this way habitually do so when making vows as a method of inducing these deities to grant favours. The consumption of bhang on festive occasions is not likely to lead to the formation of the habit, and is said to be injurious if taken in moderation.

33. The habit of smoking ganja or charas is not tolerated in respectable society of any denomination, because it demoralizes and incapacitates those who become addicted to its use. The habit among sadhus, gosains and fakirs is tolerated, and non-smokers supply them with the drug, because they think it essential to their vocation. Ganja and charas smokers other than sadhus and fakirs are considered depraved members of society, and their company is usually shunned by respectable members of society, of all communities. For social and religious customs regarding the consumption of these drugs, see paragraph 32. The hemp plant is not worshipped by any sect in this State, and, as far as I have been able to ascertain from educated people, I believe it is not worshipped by any sect in any part of Guzerat.

34. I am of opinion that it would certainly be a privation to excessive consumers, such as gosains, sadhus and fakirs and other wandering devotees, to forego the use of these drugs, because they are exposed to the extremes of climate without shelter or clothing, and seem to live for the drug alone. It also occurs to my mind that people of this class could not possibly reconcile themselves to such lives in the absence of these drugs or their equivalents. Their only ambition in life appears to be able to command a plentiful supply of the drug, and when under its influence they are happy with themselves and those around them, but in

their lucid moments, or when unable to procure the drug, they are most dejected.

35. I am inclined to think that it would be impracticable to prohibit the use of any of these drugs. If the use of these drugs were prohibited, they would in my opinion be used illicitly. The prohibition of the use of the drug would, I think, cause serious discontent among the consumers. The discontent may not amount to a political danger, but in view of the fact, that the use of the drug in its various forms is principally propagated by sadhus and fakirs, who command wonderful influence over the masses and are so blindly followed by them, it is quite possible that these sadhus, fakirs and others would try to spread sedition, and would at least cause a deal of agitation. Many of these sadhus, fakirs, etc., were formerly ordinary members of society, but now follow these vocations merely to gratify a craving for the drug, which they could not satisfy were they to remain in their ordinary spheres in life. There are, of course, many of these sadhus, fakirs, etc., whose vocations are hereditary; whether hereditary or adopted, the use of the drug in some form is indispensable. They are never free from the effects of the drug, and smoke it eternally from morning till night. As soon as the effect of one pipe commences to wane, it is revived by another. I do not think that the prohibition of the use of these drugs would be followed by recourse to alcoholic stimulants, but opium would I think be used in larger quantities.

36. There is no reason for thinking that alcohol is now being substituted for any of these drugs in this State and, as far as I know, in any other part of Guzerat. On the contrary, bhang is substituted for alcoholic stimulants by the poor classes on festive occasions. For two pice a host can supply about 20 guests with bhang, provided it be drunk without ingredients, whereas to supply the same number with alcoholic stimulants in moderation, it would cost him at least Rs. 2.

37. Charas is not used in this State, but I am told by people who have smoked it that its effect is much stronger than ganja. This I am told is the only way in which the effect of charas, when smoked, differs from ganja. The fumes of charas when inhaled, are said to be much cooler than those of ganja.

38. Flat ganja only is used locally. People who have travelled in India say they prefer round ganja when procurable. It is said to be stronger than flat ganja. Flat ganja is also said to produce thirst and a burning sensation in the throat, stomach and chest, which is not experienced by smoking round ganja. Round ganja is also said to have less seeds and leaves. Broken ganja is said to produce more cough than round or flat ganja, and is never used for smoking if it can be avoided. Broken ganja is invariably used for making majum or fakki.

39. I am unable to answer this question from personal knowledge or observation; but from information I have been able to gather from smokers, eaters and drinkers of the drug, I am told that smoking the drug is far more injurious to the constitution than either eating or drinking it. There are thousands who drink decoctions of the drug who would scorn the idea of smoking it. Either eating, drinking or smoking the drug to excess by a novice produces intoxication, whereas habitual smokers or drinkers may either smoke or drink it from morning till night and never become stupefied. The effect produced by drinking bhang lasts much longer than the effect produced by smoking either charas or ganja. Smoking the drug to excess produces insanity, asthma, bronchitis and impotence. It also deadens the intellect and generally impairs the constitution. The general belief is that eating or drinking preparations of the drug does not produce the above-mentioned symptoms, but such a question can be better answered by a medical man.

40. Ganja and bhang are used by native quacks for dysentery in one-grain doses twice a day. It is also used to check the flow of seminal fluid in cases of spermatorrhœa. It is used by native quacks as an aphrodisiac. It is also used by quacks to prolong the period of sexual intercourse, and it is also applied externally to the genital organs in case of impotence. Charas is not used in these parts by quacks for its medicinal properties. None of these drugs appear to be used locally in the treatment of cattle disease.

41. Bhang produces a most ravenous appetite and aids digestion. The more bhang a person drinks, the more food he will eat. Its effect lasts for about three hours. It is said to be invigorating and refreshing, and that it alleviates fatigue. Bhang is not used unless by habitual consumers, except on festivals, religious ceremonies and in the hot season. There are only about 175 habitual consumers of the drug in all its forms in this city, and the majority of them smoke it. Smokers of the drug are rarely found amongst the villagers of this State, but all more or less use bhang in the hot season and on festivals at all seasons of the year.

42. Bhang, I am told, is harmless if taken in moderation with good nourishing food. The smoking of ganja or charas is decidedly injurious to the constitution and produces most baneful results, examples of which are to be seen daily among the emaciated and decrepit sadhus and fakirs and others who wander about from place to place. Smoking the drug in moderation is admitted by the majority of consumers to be injurious, and many say that they regret having contracted the habit, and that they would gladly leave it off if they could.

43. Moderate consumers of bhang are inoffensive to their neighbours, but moderate smokers of the drug, whether ganja or charas, are more or less offensive. They are usually irritable, and when under the influence of the drug are very loquacious, and are not over-choice in their language. The house of a consumer is usually a rendezvous for consumers of the drug, who are his only associates.

44. The immediate effect of the moderate use of bhang on the habitual consumer is that it refreshes him, and creates appetite, but it does not produce intoxication. The effect of bhang lasts for about three hours if taken on an empty stomach. If food be taken immediately after, the effect does not last so long. There are no after-effects from the occasional moderate use of bhang. If taken to excess by an occasional moderate consumer, it produces intoxication for many hours, and when he regains consciousness, he feels a severe headache. The first smoke in the morning only is said to produce any effect on the smokers of the drug. If they smoke all day it is the same, but they never become intoxicated. The first smoke is said to be refreshing, and the effect of it will last for about two hours, but it is usually maintained by recourse to another smoke. Having recourse to the second

pipe before the effect of the first has passed off, I think accounts for the idea that the first smoke only is effective. The effect appears to be maintained from morning till night by continuous smoking. Smoking ganja and charas do produce after-effects, which are said to be as follows. They are usually felt the first thing in the morning; but with the first smoke they all disappear. Water runs from the eyes and nostrils, eyes become red and pus oozes from them during sleep, aching of the limbs and joints, headache and sleeplessness. The want of subsequent gratification does produce uneasiness and longing for the drug. Cessation of the use of the drug is invariably followed by diarrhœa, flatulence, loss of appetite, indigestion, headache and general indisposition. The general idea is that these drugs create appetite, and again smokers say that if they have no food or water, which is very often the case with fakirs and sadhus when travelling, they can manage without food or water for a considerable time without feeling the pangs of hunger or thirst provided they have ganja.

45. The habitual habit of smoking charas and ganja in moderation does impair the constitution. It causes bronchitis and asthma. It does not impair the appetite but, usually creates it and aids the digestion. It induces laziness and also habits of immorality and debauchery when the consumer is able to take good nourishing food. It also deadens the intellect, but the moderate use of the drug rarely produces insanity, but it certainly does produce insanity when used to excess. Ganja and charas smoking in moderation by various people who live well is said to materially assist them in the accomplishment of their lustful desires.

46. Excessive smoking of ganja and charas causes impotency. The majority of sadhus, gosains and other devotees take vows of celibacy, which I doubt many of them would be able to fulfil were they not more or less incapacitated for sexual intercourse by the excessive use of these drugs. Excessive smoking of ganja or charas causes insanity, but I am unable to say of what type.

47. The habitual moderate or excessive use of these drugs does not appear to be hereditary, and does not appear to affect the children of moderate consumers.

48. The habitual excessive use of these drugs does not appear to be hereditary. The habit of smoking these drugs is usually contracted as described in paragraph 27. The habitual habit of drinking preparations of the drugs is, as far as I have been able to ascertain, very rare among all classes. The occasional use of it on festivals and during the hot season sometimes develops into the habitual habit. Those who use bhang habitually and take good food are usually stout. Bhang-drinkers are said to be great eaters.

49. The moderate use of ganja is practised as an aphrodisiac and is prescribed as such by native quacks. It is also applied externally for the same purpose. I know that some prostitutes in Bombay smoke ganja and charas. They usually belong to the Mhar and Dhed castes from the Deccan and Carnatic. I am unable to say whether they use it as an aphrodisiac. I am unable to say whether these drugs when used as an aphrodisiac are more injurious than their use as an ordinary narcotic.

50. The excessive use of ganja or charas produces impotency. This fact is admitted by excessive consumers.

51. Bad characters in these parts do not use the drug. I have been nearly four years in Guzerat, and to the best of my recollection, I have never seen a consumer of the drug concerned in any criminal case. In Bombay people are often found in the streets incapable of taking care of themselves when under the influence of these drugs, but they do not belong to the class of habitual criminals.

52. I have never seen an habitual criminal who was an excessive consumer of these drugs in any form.

53. As far as I am aware, the excessive use of these drugs does not incite to unpremeditated crime. I have seen a few cases in Bombay in which people have been very violent when under the influence of these drugs. I never made it my business to ascertain whether they were habitual excessive consumers or moderate consumers, but judging from the effects invariably produced by the habitual excessive and moderate use of these drugs, I am inclined to think that they were occasional consumers. I am not aware of any case in which the use of any of these drugs has led to temporary homicidal frenzy. It often happens that a novice becomes violent when he first uses the drug, but it eventually overpowers him.

54. I know of no case in which criminals have fortified themselves by the use of these drugs to commit premeditated acts of violence or other crimes. It is quite possible that they may be used for such a purpose, as habitual moderate consumers whom I have examined say that they can always get through their work with more energy when they have taken their usual quantity than without it. They also say that it gives them courage in dangerous undertakings, from which I infer that if an act of violence were premeditated, these drugs would act as an incentive to its commission.

55. I know of no case in which criminals have administered these drugs to their victims. Dhatura, and not these drugs, is usually used by criminals to stupefy their victims. In the case of occasional moderate consumers and non-consumers complete stupefaction can be induced by these drugs, which lasts for many hours.

56. As far as I have been able to gather, tobacco is mixed with ganja to make it inflammable. Before ganja is smoked it has to be washed, and it is put into the pipe damp. Smokers also say that gooraku is also smoked with it for the same purpose, and that the effects of either ganja or charas are in no way modified by either tobacco or gooraku. The effects of the infusion for drinking are said to be in no way modified by the admixtures referred to in paragraph 29. They are said to merely make it palatable. I know of no admixture of dhatura for personal consumption or for administration to others. The oil of dhatura is mixed with ganja for external application, see paragraph 40.

57. Charas is never eaten here. Ganja is sometimes eaten by fakirs and sadhus when they are unable to procure fire. Its narcotic properties when eaten are said to be stronger than when smoked or drunk, and that the effects last longer. For the effects of bhang, see paragraph 41.

58. I do consider that the system of Excise Administration in respect of hemp drugs in this State is capable of improvement.

59. There are in all three licensed vendors of these drugs in this State—one in the city of Cambay, and two in different villages. The licenses to deal in these drugs are sold by auction to the highest bidders, but beyond this there is

practically no control over the licensees in any way. They are at liberty to sell any quantity and import these drugs without duty. They keep no accounts, and their shops are never inspected. One of the licensees of this State keeps a shop in Petlad, which is a large town in Baroda territory, and about three miles from Fanganee, which is in Cambay territory, and where he has a shop also. In Petlad this man can only sell one seer of any of these drugs at a time, whereas he can sell any quantity at Fanganee. In consequence of import dues and license-fees these drugs cost double the price at Petlad that they do at Fanganee, which is close by. I think it is very desirable that the vendors of these drugs should be made to keep accounts showing their imports and sales, and that their shops, stock-in-trade and books should be periodically inspected by some responsible revenue or police officer. The licensees in this State get their supply of these drugs wherever it can be had at the cheapest rate. The local consumers of these drugs bitterly complain of their inferior quality. The licensee at Fanganee imports bhang and ganja from Ahmednagar (Deccan), and he occasionally supplies the Cambay vendors, who also buy these drugs in Baroda and import them free of duty. I am of opinion that the sale of these drugs to one individual should be limited to a reasonable quantity; and that the vendors should not be allowed to sell them wholesale indiscriminately as they do at present.

60. Ganja is not prepared in this State.

61. Charas is not produced in this State.

62. I have no idea of the cultivation of the hemp plant.

63. Charas is not sold in this State. Ganja and bhang are sold wholesale and retail. I am of opinion that the sale of these drugs, except to vendors, should be restricted to a reasonable quantity.

64. There are no regulations in this State governing the export and import of these drugs or their transport within the State. There is no import duty on any of these drugs in this State. They are not exported unless surreptitiously. There is a wide field open for the illicit trade in these drugs in this State. As an instance of which the licensee at Fanganee is allowed to import any quantity of these drugs without duty. Whereas in Petlad, which is close by, where he holds a license for the sale of these drugs from the Baroda State, he has to pay import duty on these drugs. The price of these drugs at Petlad is double that at Fanganee. This leaves a wide field open to this man to smuggle these drugs from Fanganee, where they are imported free of duty, to Petlad, where he has to pay heavy duty and license-fees. I am of opinion that an import duty should be levied on these drugs.

65. There is no tax on these drugs in this State.

66. There is only one kind of ganja used in this State which is either imported direct from Ahmednagar (Deccan) or from Baroda. As far as I am able to gather, the ganja farmer of the Baroda State imports all his drugs from Ahmednagar (Deccan). Round ganja is not used here.

67. There is no tax on these drugs in this State.

68. There are no houses or shops in this State where these drugs are consumed on the premises. Where such houses and shops exist, I think it is very desirable that they should be open to inspection by the police, as in the case of liquor shops and other places of public resort.

69. There are no shops for the consumption of these drugs on the premises in this State.

70. There is only one man in this State who imports these drugs. He has a shop at Fanganee, which is surrounded by Baroda and British territory. His sales of these drugs at Fanganee are more than at Petlad, which is a large town. This, I think, can be accounted for by the fact that these drugs are much cheaper at Fanganee than at Petlad. The other two vendors in this State get their supply of these drugs from him sometimes, and they also get it from Baroda or wherever they find the cheapest market. There is no import duty on these drugs in this State. The licensee of Fanganee tells me he pays an export duty at the rate of Rs. 5 on every three Bengal maunds. This he says he pays at Ahmednagar.

---

60. *Evidence of* KHAN BAHADUR NANABHOY COWASJI, *Parsi, City Police Inspector, Surat.*

I had opportunities for several years of coming into contact with such persons when I was in Kathiawar. Some of them consumed ganja and bhang in excessive, and some in moderate quantities. After the receipt of Government orders, I have endeavoured to seek information from different directions where I thought it was possible to get some reliable particulars. I have consulted my subordinate Police Officers and licensed vendors of ganja and bhang and also with some of the consumers.

2. Charas and chur are not prepared and sold in this district. Flat ganja only is produced and sold in this district, and it is known by the name of ganja.

"Bhang" goes under that name chiefly. Sometimes it is called subji or maya.

3. I am not aware of this.

4, 5 and 6. I do not know.

7. Hemp is cultivated to a small extent in two talukas of this district, Olpad and Chorasi; and the land used for this purpose may be about 30 acres.

8. In consequence of the restrictions imposed by the Abkari Act, for transporting and exporting ganja and bhang, and for their sale and possession, the cultivation was given up owing to its being troublesome and unremunerative.

9. The soil required for hemp cultivation ought to be best yellow or sandy. It cannot grow in black soil. The ground requires to be well ploughed, and ought to be frequently weeded. Two crops can be obtained during one year, but not in the same land. Kharif crop is said to possess more narcotic properties than the rabi.

10. The cultivators are of the same class as other agricultural cultivators.

11, 12 and 13. I do not know.

14. Bhang is produced in this district in Olpad and Chorasi talukas, but ganja and charas are not prepared in this district.

15. The following is the methed of manufacturing bhang :—

After cutting the plants and allowing them to dry for some days they are tied up in bundles and taken to the threshing floor in order to separate the seeds and leaves from the stalks and then passing through a sieve to remove the broken small twigs and rubbish from it.

16. Bhang is prepared by the consumers in their own houses and sometimes at the licensed vendor's shop, where they drink on the premises. Ganja can be prepared from the hemp plant wherever grown, but I am unable to say whether ganja or charas can be prepared from the wild plant wherever grown.

17. By no particular class of people which I can mention.

18. Bhang deteriorates in quality after twelve months, so the ganja loses to some extent its intoxicating qualities after twelve months or more, and becomes unfit for smoking. The above is the period for which bhang and ganja remain in good condition with ordinary care. Generally damp weather affects them, from which they ought to be protected. Want of such care leads to their early deterioration; no special remedies are known by which their quality can be preserved longer.

19. Charas is not imported in this district, nor is it obtainable. Ganja is almost used for smoking only. To a very limited extent it is used in the preparation of majum, pak or yakuti. The majum prepared with the admixture of ghee obtained by boiling small leaves, and if it is prepared with care and skill, can be kept in good order for about five or six months.

20. Generally all classes of people in all localities smoke ganja; even some of the people of higher classes do smoke.

In this district about 3 per cent. of the population are habitual ganja smokers, chiefly fakirs, sadhus and bairagis.

21. Flat ganja is more preferred for smoking; round ganja is not generally used here.

22. Charas is not used nor sold in this district.

23. Bhang is not used for smoking.

24. People more or less in this district drink bhang during the hot season as a cooling beverage, but no one seems to eat the same.

25. Bhang is used to a limited extent for drinking. As to the extent of the use of ganja, please see answer to question No. 20. The consumption of ganja and bhang in this distict is on the decrease owing to their increased price, which prevents the poor classes of people using them to the same extent as they used to do before. Also the decrease is due to increasing general use of liquor in these days, specially cheaper kinds of Europe spirits.

26. (*a*) About 60 to 70 persons may be said as moderate consumers and may spend one pie to three pies on ganja per day.

(*b*) Out of hundred ganja smokers three to four persons may be excessive smokers. They may spend about half an anna per day for it. Generally they do not consume the whole quantity to themselves, but such consumers have one or more companions to whom they generally contribute some quantity out of their own.

(*c*) About 10 per cent. may be occasional smokers, *i.e.*, those who do not themselves buy ganja, but avail themselves of the offers made by their friend smokers.

27. The smoking of ganja is confined generally to the lower classes of people. No such limitation is met with as regards the use of bhang.

The same remarks apply to this answer as mentioned in No. 26.

28. Please see my answer to question No. 26.

29. Tobacco is ordinarily mixed with ganja when used for smoking; generally equal quantities of ganja and tobacco are mixed together. It is said that to suppress the bad smell of ganja and to have moderate effects of the same, they generally mix tobacc. So far as I know dhatura is not used with ganja.

"Bhang massala" is not kept ready made for sale by the bhang-vendors, but consumers of bhang generally bring as many ingredients as they like, according to their taste, from grocers.

30. Consumers of bhang and ganja generally prefer to be in company of one or more persons, except those who indulge in smoking ganja secretly. Generally ganja-smoking is confined to the male sex, and persons of all ages smoke it. Some of the females, wives, and other relatives of sadhus and bairagis who wander about the country also smoke ganja. Bhang beverage is sometimes partaken of by females and children, but very seldom; but ganja is not given to children to smoke.

31. The habit of smoking can be acquired if it is smoked for about ten or twelve times; moderate consumers can break off the habit if they abstain from it for a short time. Excessive smokers of ganja may find difficulty in breaking off the habit, and for some days without it they may suffer from want of appetite, indigestion, and do not feel inclined to work. Moderate smokers may suffer also, but to a slight extent.

32. Generally in the worship of Shiva on the Maha Shivaratri day some preparation of bhang is sprinkled over the Shiva Lingum, and some placed in a vessel near it as an offering which is afterwards distributed amongst the worshippers who may have gathered there; such is the practice going on in some of the mandirs. The consumption in this ceremony is not likely to become a habit, as generally the worshippers there who are addicted to its use receive and drink only a little quantity which can be held in the palms of their hand.

33. Bhang-drinking is not looked upon as degrading if taken in a moderate quantity; even a respectable person would not mind his friend knowing that he occasionally takes bhang. With regard to ganja-smoking the case is different, because in higher classes it is looked upon as unbecoming and disgraceful. It is considered to be intended for mendicants, bairagis and fakirs. There is no such custom of worshipping the hemp plant on any occasion in this district.

34. It would be a serious privation to *fakirs*, bairagis and sadhu mendicants, and such *habitual* smokers to be compelled to forego the use of ganja. Generally these people live on alms, and from their co-religionists, among whom liquor drinking is treated as sin as it cannot be concealed, while they can receive sympathy and alms from the members of their community, and also they can conceal the effects of smoking ganja. Such mendicants in order to pass away their time and to remain free from the effects of their anxieties require some intoxication. As long as there is

nothing else equally cheap and effective to take the place of ganja, the consumers can be content with this drug.

35. The prohibition may not amount to anything like a political danger, but the discontent among the lower and ignorant classes would be great, so entire prohibition is not advisable. It would, however, I consider, lead to increase in the consumption of alcoholic stimulants. I think that the use of alcohol is gradually taking the place of bhang among the better class of consumers in this district, probably owing to the facilities in obtaining low-priced foreign spirit, the importation of which has increased during the recent years.

36. I consider the use of alcohol is gradually taking the place of bhang among better classes of people in this district, probably due to the increased facilities, especially in towns, for obtaining cheap foreign spirits, the importation of which seems to have increased enormously.

37. I have already mentioned above that charas is not produced nor sold in this district. Those who have smoked charas say that its effects are much stronger than those of ganja, and a small quantity of it produces more intoxication.

38. Only flat ganja is sold and consumed in this district, so I am unable to furnish information on this subject.

39. Bhang is used for drinking purposes, and ganja for smoking. The habitual smoking of hemp preparations is more injurious than the eating or drinking of bhang.

40. Bhang is sometimes used by native doctors. In the treatment of cattle disease bhang or ganja is not used in this district.

41. (*a*) Those who are even moderate consumers of ganja do not feel hungry till they smoke it. It is said to increase appetite or strengthen digestion. In the case of such consumers sometimes it assists digestion, and it is smoked with that object after having a heavy meal at caste dinners.

(*b*) Consumers think that ganja-smoking always helps to undergo exertion and fatigue.

(*c*) Ganja is not used as a febrifuge, but bhang is sometimes used in cases of fever by some persons.

(*d*) I do not know.

Persons in well-to-do circumstances do not, except in some cases when travelling, smoke ganja to counteract the effects of bad water.

42. As far as I know, moderate use of ganja is not harmful, nor is it beneficial. In moderate use if the consumers are in a position to get proper quantity of food, milk, and ghee, it will not produce bad effects. It is very injurious and weakens the consumers, specially those persons who are not able to get sufficient food. I have come to these conclusions after having consultation with some of the ganja-smokers.

43. Yes.

44. The habitual consumer of ganja feels hunger soon after smoking it, as it produces intoxication, and the smoker feels refreshed. In some cases the effects do not last for more than two hours, and if a consumer does not get smoking at its time, he feels sometimes headaches or uneasiness.

45. Kindly see answer to question No. 42.

Young persons in habit of smoking ganja for some time are induced to incur habits of debauchery, but not so great as caused by other intoxicating things. Ganja taken in large quantity for smoking may produce insanity in a few cases.

46 and 47. I do not know.

48. I don't think the habitual, moderate, or excessive use is likely to become hereditary habit or to affect the children of such consumers.

49. It is not used as an aphrodisiac, nor is it used by prostitutes. The excessive smoking of ganja may bring impotency, and so it is used by sadhus for this purpose.

50. Excessive use for a length of time might produce impotency.

51. Ganja smokers and bhang drinkers are not supposed to be connected with crimes in general or with crimes of any special character.

52. I do not think that excessive use of any of these drugs has any connection with general or special class of crime. However, in one case to my knowledge it so occurred that in November 1885 in Broach certain Talavias having gathered together one morning, and after smoking ganja, committed a riot in that town, in which the Superintendent of Police, Mr. Prescott, was killed. Further particulars, if required, may be obtained from Broach.

53. The above is the only case I know of.

54. Generally it is not so, but the above case came to my notice which I have mentioned already.

55. I do not think that the different preparations of hemp are so used, but ganja, I should say, might induce such persons to commit crimes if partaken in a large quantity by persons unaccustomed to its use.

56. The effects of ganja are modified by mixing tobacco and those of bhang by mixing different spices.

57. I do not know.

58. The Excise Administration regarding hemp drugs is working well, and I do not see what further suggestions I can offer as to its improvement.

59 and 60. I do not know.

61. Charas is not made in this district.

62. I do not know.

63. I have no objection to offer to the present system of its working.

64. I do not know.

65. I have no suggestion to make in this connection.

66 and 67. I cannot say.

68. In the city of Surat and in the district the preparations of bhang and ganja are only sold. There are 22 shops in this district, and the annual consumption is 50 maunds of ganja and 40 of bhang.

69. The wishes of the residents of the locality are very seldom consulted in this district before opening a shop therein. Such objections are very seldom raised. I do not remember a single case known to me. Preparations of hemp are very often sold by grain-sellers, tobacco shopkeepers, and their sale does not appear objectionable to neighbours.

70. This district is surrounded by Gaekwari territory, and in old Gaekwari time ganja and bhang were no doubt smuggled from these States, but the introduction of the license system in

Gaekwari territory has prevented smuggling, and owing to this the increased sale of bhang and ganja had taken place since the new system introduced in Gaekwari territory.

Letter from the Collector of Broach appended to NANABHOY COWASJI'S *evidence.*

Replying to your letter No. 9, dated 21st ultimo, I have the honour to inform you that the riot referred to took place at Broach in November 1885. The rioters were a band of Talavias (an aboriginal depressed tribe) who, under stress of poverty and on account of various imaginary grievances, had combined to urge a demand for subsistence, land, etc., upon the authorities. Failing to get satisfaction they remained for some time under the influence of a "Bhagat," or religious leader, who excited their fanaticism by a promise of the Raj of Broach. He told them (and probably believed) that he could turn bullets into water, should they attack the English authorities, and actually went through a ceremony of planting his flag on one of the Broach bastions. The proceedings of this small band of outcastes, who seldom assembled in any numbers, attracted little attention and, when noticed, were regarded as the harmless pranks of a few ignorant beggars. On the occasion in question, however, about 200 of the Talavias came together and marched to the Collector's bungalow, armed with bows and arrows and clubs. They were regarded as ordinary processionists and were not interfered with. Failing to find the Collector, they marched towards the town without apparently any precise object and on the road were overtaken by Mr. Prescott, District Superintendent of Police, whom, either mistaking him for the Collector or in a fit of blind fanaticism, they at once attacked and killed. After other less important outrages they came into collision with the pursuing police, who fired several volleys at them and put them to flight with the loss of a few killed. Most of the rioters were apprehended before long, and after trial the leaders were hanged, the remainder being sentenced to transportation or various terms of imprisonment.

2. The connection of these events with the consumption of ganja is very slight. I have examined the record of the trial and other papers connected with the case, and find that the rioters are said by an approver to have started on the march to the Collector's house after having "first bathed and made the red mark and smoked ganja." I find no other reference to the subject. The District Judge in his finding merely remarks that the accused acted as described by the approver.

3. No doubt the rioters did smoke ganja, but there is nothing to show that they were in a state of ganja intoxication or that they took it otherwise than as they might have taken alcohol or any other stimulant before proceeding to an important undertaking.

---

61. *Evidence of* MR. J. A. GUIDER, *Inspector of Police, Munmad.*

51. My experience, based on over twelve years' service in the Bombay City and District Police, negatives the first portion of this question. The moderate use of the drugs has no material effect on crime in general or on crime of any special character.

52. The excessive use of any of the drugs is not indulged in by bad characters to any calculable extent. Crime in general is not influenced by the small percentage of the criminal class who go in for excessive indulgence. Isolated cases of violent crime do sometimes occur, perpetrated by persons under an excessive influence of bhang unintentionally brought about. These instances are, however, rare.

53. Occasional excessive indulgence in bhang has a tendency in non-habitual consumers to crimes of unpremeditated violence, much in the same way as the effect of alcohol on certain temperaments. I know of no case in which an excessive indulgence in this drug has led to homicidal frenzy.

54. Not as a rule, except in cases of habitual consumers, who indulge in it to steady their nerves, in the same way as an ordinary consumer of alcohol would resort to his peg before entering upon an undertaking in which he desires to have his wits about him.

55. Some of the class of criminals who drug people for the commission of crime use ganja as a means of bringing about stupor to facilitate the execution of their designs. Travellers on the road or putting up at dharmsalas are generally the victims in these cases. The drug is administered under the disguise of a friendly smoke of tobacco, and is seldom administered pure, in order to avoid suspicion and to render the stupor more intense, as complete stupefaction cannot be induced by a moderate effect of the pure drug such as would result from an ordinary smoke. I know of a case in which a man who was an habitual ganja smoker was rendered completely insensible by being given pounded dhatura seeds mixed with ganja to smoke. He was so completely stupefied that one of his legs was broken by being struck with a heavy stone without his being aware of it. Comple stupefaction can be induced by this drug alone without admixture if administered in sufficiently large quantities.

---

62. *Evidence of* RAO SAHIB PRANSHANKAR, *Brahmin, Inspector of Police, Detective Branch, Bombay.*

18. Yes, they deteriorate by keeping. Yes, after two years it quite loses its effect. With ordinary care these drugs will keep good for from eighteen to twenty-four months after they are first obtained from the plant. Contact of external air, exposure, evaporation, and consequent effects are the causes of deterioration. No special measures can be taken to prevent deterioration.

19. Ganja and charas are only used for smoking.

20. Sadhus, bairagis, fakirs, *pardesis*, some goldsmiths, some Brahmins, and even a few of the respectable classes smoke ganja and charas. Among the sadhus, fakirs, etc. the proportion may be about 60 per cent., and among other classes the proportion varies from 1 per cent. to 3 per cent.

21. Flat ganja is preferred for smoking. The

ganja considered best is known as baluchery ganja, which is eight times stronger than the ordinary.

24. (*b*) Bhang is drunk by Brahmins, Shrawaks, Gosains, Musalmans, goldsmiths, sadhus, etc., and even by well-to-do classes in all localities.

Among the Brahmins, Shrawaks, Gosains, the proportion of bhang drinkers is 25 per cent., and in others from 1 per cent to 10 per cent.

25. The use of ganja, bhang and charas is neither on the increase nor on the decrease. Taking the last fifteen years' experience, the use was on the increase for the first ten years; but for the last five years, the use of alcohol (liquor) has considerably counteracted the slowly growing increase. Experience has shown that many ganja smokers and bhang drinkers have left the drug owing to their intimacy with liquor.

28. For ganja and charas the cost is—

(*a*) ½ anna per day per head.

(*b*) 1 anna per day per head.

For bhang the cost is—

(*a*) $\frac{1}{12}$ anna per day per head.

(*b*) ¼ anna per day per head.

29. (*a*) With ganja, are mixed ordinarily tobacco and charas and nothing else.

(*b*) With ganja dhatura is exceptionally mixed for stupefying the victim, or by habitual confirmed excessive smokers. Ganja is also washed with rose water or milk and opium or musk is sometimes mixed.

With bhang, ordinarily, only spices, such as pepper, saffron, nutmeg, cardamon, sugar, rose flowers are mixed for taste. Exceptionally dhatura, copper coins, jawar corn are mixed for extraordinary intoxication. Bhang massala is rarely sold in the marker, but is prepared by consumers of bhang for ready use. They eat the powder. The ingredients generally are bhang, pepper, almonds, and poppy seeds. There are various sorts of preparations made from ganja and bhang. The following are ordinary:

(1) majum, sweetmeat, (2) yakuti, (3) chevda, a preparation of rice, (4) preserve of rose flowers called gulkand, (5) sakar pak, sweetmeat, (6) gram, (7) dry ginger, and several other things.

Ghi or butter is prepared from bhang by the following processes:—

1st.—A quantity of bhang is mixed with water and ghi is added. This is boiled for two hours. It is then removed and passed through a thin cloth, and the bhang dust or refuse is separated. It is then allowed to cool, and the ghi is collected from the surface, the water being thrown away. The ghi thus collected is used to prepare various kinds of pleasant sweetmeats.

2nd.—Instead of water milk is mixed and boiled. The bhang dust or refuse is separated and curd is added to the milk, and the same is kept for a night. Butter is then churned out of the curd. This is more intoxicating than the preparation obtained by the first process.

30. Children never smoke ganja, but boys of and above fifteen years of age do smoke rarely. As for bhang, children of five years and upwards take it in exceptional cases. It is not usual for children to use these drugs.

31. Yes, merely by company. In the beginning it is not difficult to break off; but if the duration of the habit is longer, then it is difficult to break off. Yes, there is always a tendency for the moderate habit to develop into the excessive.

32. I know of no such custom at all.

33. The consumption of ganja and charas is regarded with disfavour by the respectable classes. The consumption of bhang is regarded with less disfavour. These drugs are considered sacred, as Mahadev, a god, used to drink and smoke it largely. Bairagis and worshippers use them on this account; but this doctrine does not find favour with the educated classes of the present day.

34. Yes, to habitual excessive consumers and habitual moderate consumers it will be. The consumers in both the cases will be debarred from sharing or enjoying the consequent pleasure in their estimation, and where any good from a medical point of view had been attained, the consumers would be most dissatisfied to lose it.

For ganja—The habitual excessive consumers may be 1 per cent.

The habitual moderate consumers may be 3 per cent.

For bhang—The habitual excessive consumers may be ten per cent. The habitual moderate consumers may be fifteen per cent.

35. Yes, but the drug will most probably be consumed by some illicit process. The prohibition can be enforced only by legislation. The prohibition will occasion serious discontent among the consumers; but it would not amount to a political danger. (*a*), (*b*). Yes, certainly.

36. Yes, to bad company, and a growing tendency to immorality. It is no shame to take liquor for a person who has no social restriction; but the taking of ganja and charas would be viewed with disfavour by almost all concerned. In the estimation of many castes, whereas liquor taking is not considered shameful, the smoking of ganja is a fruitful source of scandal.

37. The effect of charas smoking is stronger than the same on account of ganja smoking.

41. (*a*), (*b*) and (*c*) Yes.

(*d*) By way of forgetting pain, allaying fatigue, anxiety, etc., and keeping jolly all round. Bhang is also used to give nerve power to the brain, and in this connection, Shrawak jewellers often drink it, and they profess to be better able to value jewels.

42. It is beneficial, and the moderate use is harmless. The reasons are apparent from my replies to queries Nos. 41, 43, 44.

43. Yes, quite.

44 It is exhilarating and inebriating. The individual under its effect is for the most part cheerful and agreeable. It is refreshing and produces sleep, quieting the nervous system. It creates appetite. The effect lasts three hours generally. Except slight windiness or slight lowness of spirits, and sometimes diarrhœa, there is no other after-effect.

Yes, want of subsequent gratification produces longing and uneasiness.

45. (*a*) None.

(*b*), (*c*) and (*d*) No.

(*e*) No; but it does induce laziness.

(*f*) In moderate doses ganja and not bhang is

known rarely to lead to insanity. Such insanity is more of a temporary nature than permanent. The symptoms are liable to be reintroduced. Insanes often do confess to the use of ganja on recovery. There is good ground to believe that ganja in moderate doses leads to insanity, only if there are predisposing causes. I know of a very recent case where a menial servant who showed symptoms of weakness of intellect and had a bad company turned insane by moderate use of ganja for two months. He has recovered after six months in the asylum.

I know of a bhang case, in which a boy aged 18 years first took to moderate drinking of bhang. This was followed by occasional smoking of ganja in moderate doses. The boy went from moderate to excessive use of both and turned insane, and has been suffering for the last eight years. He has not yet recovered; but is showing signs of improvement of late.

46. In large doses ganja and even bhang is known to lead to insanity, which is curable generally. The experience in a lunatic asylum is calculated to demonstrate this clearly. The average of persons admitted in the Ahmedabad Asylum as insane on account of ganja is six per year, calculating a five-year's average. The average per year of such insane ganja smokers cured and discharged is three. This shows that 50 per cent. are curable.

49. Yes, especially by a few prostitutes.

51. No, I believe the moderate use of the drugs has no connection with crime at all. This is best known by the fact that out of the total number of persons annually convicted and sentenced there are few such consumers—perhaps from three to five in a jail, where the number annually is 1,700.

52. My reply to this is the same as above. Excessive use may lead to unpremeditated violent crime in a few cases. I have access to all jails in my official capacity, and reply to this by experience.

53. Rarely. Ganja may do so, but not bhang.

54. No, but alcohol is.

55. Yes, but dhatura is often mixed. Yes in large doses, complete stupefaction can be induced without admixture.

68. Yes, I should have no objection to allow the houses or shops, as they are harmlesss, and often serve to assist in the detection of crime.

Oral evidence.

Question 35.—Persons who are in the habit of smoking ganja require some sort of stimulant. Bairagis and labourers being poor people, would turn to dhatura, which they can get for nothing. Such people want a stimulating drug and not a sedative like opium. I know no other drug which would suit such people's tastes. Dhatura would be smoked with tobacco. The supply of dhatura is unlimited. People who can afford it will take to toddy or country liquor. Regarding the change to dhatura, I was referring to excessive consumers who want violent stimulant. Moderate consumers might not adopt an alternative drug. I have seen Bairagis smoking dhatura. The city of Broach is holy because of its situation on the Narbadda. It is much frequented by the pilgrims of the Narbadda. I have therefore had many opportunities of observing sadhus. My statement that dhatura is a violent intoxicant is based on information given me by these people. I may say that dhatura is commonly used even now, but by ascetics and fakirs only. The higher classes regard it as a dangerous drug. The fakirs do not; but the lower classes who do not use it are afraid of it at present. I have seen the effects of dhatura taken in meat or drink. I don't think the symptoms consequent on dhatura poisoning are those found in a mad man.

Question 45.—The second case I have described has not gone into an asylum. I have known the lad for the last sixteen years. He was about ten years old when I made his acquaintance. He belongs to the place where I reside, my native town Surat. I am in a position to know him intimately. He began to take bhang in the form of drink at eleven years of age. The people with whom he was living took bhang, and he therefore learnt the practice. His doses gradually increased during five or six years. Then he began to smoke ganja, and gradually exceeded with that drug also. In two or three years he began to show symptoms of madness. He got steadily worse. There was no improvement till recently, during the last six months. He has now left off taking both bhang and ganja. He was indulged with bhang by his friends out of pity after he became mad: but his ganja was stopped. For the last three years the bhang also has been discontinued. The small doses of bhang affected him differently at different times. They sometimes excited and sometimes soothed him. The father and grandfather of the boy were healthy, and the family were healthy. The mother became insane in her later years, when the boy was about fourteen years old. No member of the family took bhang; but the connections with whom he lived did so. I can recall no other case of insanity which has not gone into an asylum. I have had to hold the police enquiry into one or two cases of lunatics picked up in Broach city. I was Police Inspector there. In those cases the insanes were ultimately handed over to their relatives, who turned up afterwards. The result of the enquiry in these cases was reported to the Magistrate. The report in one case stated that the man was violent, in another dangerous to others. I can't remember enquiring into the cause of insanity in these cases or making any reports on that point; but the particulars of the man's condition and the necessity for keeping him in custody were stated. This report was not on a printed form, but on the form of an ordinary report.

Question 51.—I am speaking from my knowledge of the population of the Ahmedabad jail. Comparing the proportion given in my answer 20, I hold the opinion that the proportion of hemp drug consumers in the jail is much lower than it is outside the jail walls, and I realize that this shows that there are very few criminals who use the hemp drugs. I have seen most of the prisoners in almost all the jails in the presidency, and in the course of my duty, as connected with the detective branch of the police, had occasion to question and examine them closely on various points. I have paid special attention to this point, and am confident of the soundness of my opinion. My statement covers convicts admitted into the jail for all offences. In regard to alcohol also, I maintain that the proportion of criminals in jail who are consumers is smaller than that among the outside population; but it is larger than in the case of the hemp drugs. In regard to opium the proportion is about the same as for alcohol. I

base my opinion on my general experience and the statements of the prisoners themselves. The jail records give no information on the fact whether the convicts are consumers of the hemp drugs. I have not questioned each of the 1,700 prisoners on the point. I have sought information from authorities and from prisoners regarding their fellow-prisoners.

63. *Evidence of* Surgeon-Major-General P. S. Turnbull, *Surgeon-General with the Government of Bombay.*

Oral evidence.

Question 1.—I am Surgeon-General with the Government of Bombay. I have been thirty-three years in the Indian Medical Service, all in this presidency. I have been in military and civil employ; more than half of my service in the latter. I am Surgeon-General since February last. I have no special asylum experience, nor any special insanity experience, except as a visitor and inspecting officer of asylums and prisons. I was Inspector-General of Prisons in the Bombay presidency for two years.

Question 45.—I have no personal experience of the effects of the hemp drugs, on the people. Nor have I come to any very definite conclusions regarding the connection of the drugs with insanity. From enquiry of medical officers in charge of asyums and others I have ascertained that they are said to be a cause of insanity. I believe them to be an exciting if not a predisposing cause of insanity. I have not given the matter special attention lately except in connection with statistics. The statistics show that a considerable proportion of insanes owe their insanity to the hemp drugs. I have no statistics beyond those contained in the asylum reports. The statistics do not distinguish between exciting and predisposing cause of insanity. It is eight or ten years since I was Inspector-General of Prisons. A certain number of prisoners was annually shown as having been transferred to asylums, but the effects of the drugs on crime generally did not come under my observation. I cannot say what proportion of the prisoners so transferred owed their insanity to the hemp drugs. Nor can I say that I remember for certain that any of them were hemp cases.

I know the procedure followed by the Civil Surgeon in dealing with cases of insanity referred to him for observation. My impression is that hemp drug insanity differs from other insanity simply in respect to its cause. The cause can therefore be satisfactorily ascertained only by history. This would be true also of all kinds of insanity. To diagnose cause it is essential to have an accurate history. No accurate history could be derived from a man who could not distinguish between coincident and causal connection. I am aware that enquiries in these cases are generally conducted by a subordinate officer of Police. Even if the Civil Surgeon or Superintendent of Asylum finds an opportunity of enquiring for himself, he is at the mercy of absolutely ignorant informants, but it is rarely the case that he has such opportunity. The information obtained in the manner described above has hitherto been accepted and acted upon; but it is not in my opinion a trustworthy basis for any conclusion regarding the connection between hemp drugs and insanity. I think further enquiry is necessary. In my official capacity I have had no opportunity of making such enquiry, and this is the reason why I have used the word "impression" in regard to my views on the subject. The enquiry into causation of all diseases is a part of the duty of the medical officer, in order to assist him in the treatment of the patient, but he has not the means of making such enquiry in these cases. The whole history and all facts connected with it ought at once to be entered in the case book as a guide to treatment. Any fact coming to knowledge should be so entered, and the register ought to be a record of reasonably ascertained facts. It is upon the register that the returns are based. There is a column in statement VII headed "unknown," which is intended for the entry of cases in which the cause has not been ascertained with reasonable accuracy. If this column was largely used, I should think it would be a matter of censure on the person on whom the responsibility for enquiry rests. I do not think, looking at the present system, that such use of the column, provided it is in accordance with the Magistrate's information, would justify censure on the Superintendent of the Asylum, for he has to accept the material supplied by the Magistrate. But he would not be justified in entering a case as cause unknown if the Magistrate showed a cause, without referring it back to the Magistrate for further consideration. There is no actual rule that the Superintendent must accept the Magistrate's record as to cause; but practically he must do so, unless he has information to the contrary. The diagnosis of course therefore rests with the Magistrate except in those cases in which the Superintendent may have an opportunity of investigating the cause himself. I do not think it possible for a lay person to ascertain accurately the cause of insanity. There is too much tendency to jump to conclusions. A joint enquiry by the Magistrate and the Civil Surgeon, if feasible, would be the best possible; but it would be difficult to arrange such procedure.

64. *Evidence of* Brigade-Surgeon-Lieutenant-Colonel G. A. Maconachie, M.D., *Principal, Grant Medical College, Bombay.*

1. None.

2. Possibly; but I have never heard so.

19. I have never met any one who used any form of hemp, so far as I know.

23. Don't know.

28 and 29. Don't know.

30 to 32. Don't know.

36. Can't say.

37. Don't know.

39 and 40. Don't know.

41. So far as I recollect, I never prescribed any form of Indian hemp for any purpose.

42. Being prejudiced against the drug when first studying Materia Medica, I have ignored it ever since.

44. Don't know. Writers on Materia Medica given certain uses for the drug, but they are so uncertain in their statements that I doubted their correctness, and have never used it.

45 and 47. Don't know.

49. Don't know.

57. Have no experience.

In conclusion, I already reported that I know nothing whatever about this drug, but have been again called on to make this report.

65. *Evidence of* Brigade-Surgeon-Lieutenant-Colonel J. Arnott, M.D., *Physician in charge, St. George's Hospital, Bombay.*

1. Insufficient opportunities, appointments I have held affording no scope for such enquiries.

30. I believe that these drugs are chiefly used by men. I have not seen them used by children.

31. Yes.

32. I believe bhang is used during religious festivals, and I have seen low caste Hindus apparently under its influence during the Muharram.

41. Yes.

42. I should consider them harmful.

45. (*d*) to (*g*) Yes.

66. *Evidence of* Surgeon-Major D. N. Parakh, *Parsi, Surgeon to the Gocul Dass Tejpal Hospital, Malabar Hill, Bombay.*

1. I have had very few opportunities; have met with only one case of a man "running amuck" in military practice; and have seen a few persons addicted to the habit, and four or five cases of poisoning by *Cannabis indica*. I have not had charge of any lunatic asylums, where alone cases are met with of insanity from this cause, and where such experience as would enable one to answer these questions could be gained.

2. Yes. By the same names.

41. Very moderate use of bhang increases appetite, and gives staying-power under severe exertion. This I have noticed in the very few cases I have seen. It does not act as a febrifuge or preventive of disease. By bhang I mean the infusion of the leaves and seeds commonly called subji.

Bhang in the form of infusion I have known to produce the following effects in the persons who take it habitually:—It refreshes them, gives them pleasant ideas and increases the appetite. The after-effects are depression and mental obfuscation; want of subsequent gratification does produce a longing.

45. (*a*) Yes, mental.

(*c*) Not, if bhang is moderately used.

(*f*) Yes. It acts as an exciting cause where there is a predisposition, but in the very few cases I have seen there was no predisposition, and yet it caused insanity, homicidal in character and temporary.

46. I have seen a case of "running amuck" attributable to this cause (ganja-smoking), the man running blindly and furiously and shooting at everyone he met on the road. I have seen another case where a wild maniacal delirium followed the excessive smoking, and the man ultimately became paralysed.

49. I have seen some men use bhang as an aphrodisiac. Yes, to the last question.

Oral evidence.

Question 1.—I am Member of the Royal College of Surgeons and L.R.C.P. I attended the University College, London. I have served for nearly twenty years in the Indian Medical Service, partly with regiments, and for the last twelve years in the Civil Department. I have had no special experience of insanity. The four or five cases of poisoning I refer to in my first answer were cases of intoxication from ganja. They were brought to the hospital and treated there. They all recovered, and there were no serious results. I had no occasion to diagnose these cases from the symptoms, because the people said they had been taking ganja. Diagnosis from symptoms alone would have been very difficult. In one or two of the cases the contents of the stomach were pumped out as well as I remember; but they were not sent to the Chemical Analyser, because there was no question of foul play and no fatal result. Without the contents of the stomach diagnosis between dhatura and ganja would be practically impossible.

Question 45.—The cases I had in mind in my answer 45 probably include the cases referred to in answer 46, and my answer 45 should be taken as referring to excessive use as regards these cases. I am not prepared with full details of the cases referred to, for I have no record of them.

Question 46.—There were two or three persons whom I had to send to asylums for insanity caused by the excessive smoking of ganja; but they occurred so long ago that I have no recollection either of the exact number of them or of their details. The last of these cases must have occurred in 1876 or 1877. As well as I remember, I did make enquiry in these cases regarding predisposition to insanity, and found no such causes. The two cases mentioned in answer 46 were not sent to the asylum, and are distinct from those referred to above. They occurred about the same time as the others, and I can give no more detail about them than is recorded in the answer. I believe they were true ganja cases; but I cannot be certain that no other drug was used. I cannot be certain that the insanes did not take liquor; but there was no *delirium tremens* or other symptoms of alcoholic poisoning. The man who ran amuck was noisy and violent. He first killed the man against whom he had a grudge, and then turned his rifle against any other person he came across.

In the other case, there was great violence and delirium, which was followed by great depression, and finally the man became paralysed, as far as I remember. Acute mania was the prominent symptom in both cases. I have not seen acute mania from the effects of dhatura, but am not prepared to say that it does not result. There is a variety of acute mania called transient mania. Ganja-smoking may be a cause of such mania; but it is not necessarily connected with toxic substances, such as ganja and dhatura. I could not diagnose the transient mania that results from toxic causes from that due to other causes. I have never examined a brain of a ganja insane, nor have I read that any lessons are to be found in such cases. I should accept Dr. Warden's statement that they have not been discovered. The ultimate paralysis in one of the cases was not, I believe, due to ganja, and was not consistent with the ganja theory; but the other symptoms he had may have been caused by ganja. The diagnosis of a case of ganja insanity depends almost entirely on previous history. The suddenness of onset and other symptoms afford little guide to diagnosis. The diagnosis is practically one "by exclusion." In attributing the insanity in these cases to ganja, I cannot say that I am satisfied that I excluded all other causes. The diagnosis in the two cases rested on statements made by the friends. I had no experience at that time of the moderate use of the drugs. The only cases I saw were those described. Since 1876 to 1877 I have seen no cases of insanity arising from ganja-smoking or the use of the hemp drugs in any form. These last twelve years I have been in civil surgeoncies for three years, and for nine years in charge of the Gokaldass Hospital. This hospital does not admit insanity cases. If we suspect insanity, the patient is handed over to the police, who make arrangements for disposing of him. The man who ran amuck did not come to hospital, and the case was not under my observation. He shot himself. I cannot say exactly whether the man was intoxicated or insane; but it was ganja which upset him. I cannot say whether it is possible to differentiate between intoxication and insanity caused by the hemp drugs, except in the matter of duration of the attack. This attack lasted, as far as I know, only a few minutes. I know nothing of the man's state before he ran amuck except that he smoked ganja.

---

67. *Evidence of* SURGEON-MAJOR H. W. B. BOYD, *Superintend nt, Colaba Lunatic Asylum, Bombay.*

1. About seventeen years' service in India, during which I served three and a half years with regiments, seven years as Civil Surgeon and Superintendent of a Jail, and about three and a half years as Superintendent, Colaba Lunatic Asylum.

2. Yes; they are locally known as (*a*) ganja, (*b*) charas, and (*c*) bhang.

19. Ganja and charas are both used for smoking. Ganja is also used in the treatment of cattle for diseases of the digestive system, and ganja mixed with tobacco is used as an application to local inflammations.

23. Bhang is never used for smoking.

28. (*a*) About 4 tolas, cost about 4 annas.

(*b*) Up to 12 tolas, cost 1 rupee.

The above refers to the use of ganja and charas used in smoking. As regards bhang, moderate consumers, about 2 annas worth per diem, and excessive consumers, 8 annas per diem. No exact weight can be mentioned, as bhang is given in solution with sugar and bhang massala. About 1 tola full for moderate, and 3 tolas for excessive consumers.

29. (*a*) Ordinarily tobacco (country) is mixed with ganja as well as with charas.

(*b*) Dhatura is used sometimes with ganja to increase its intoxicant effects.

Bhang massala contains bhang ¼ seer, sugar 1 seer, massala (consisting of almonds 2 tolas, pistachio nuts 2 tolas, poppy seeds 1 tola, aniseed ½ tola, cardamoms $\frac{1}{20}$ of a tola, rose petals (fresh) 1 tola, charolee 1 tola, plums or raisins 1½ tola, black pepper ¼ tola), water, cold, 24 ounces.

30. Bhang is chiefly used in company; ganja and charas are also used in company. These drugs are also consumed in solitude, but to a limited extent.

The use of these drugs is mainly confined to male sex; although it is also used to considerable extent among the lower class of females, such as Chamars and Dheds. It is not usual to give these drugs to children, but in exceptional cases bhang is used in the form of bala golee, *viz.*, pills mixed with aromatics, for colic in infants, and also as a sedative in restlessness of new-born infants.

31. The habit is easily formed, and easily left off. This refers only to the use of drinking bhang. The smoking of ganja and charas, however, is said to be difficult to leave off. There is a tendency to increase the drug.

32. Smoking ganja and charas is prevalent in social meetings of a friendly nature. Bhang is very seldom used as a drink in religious ceremonies, though it is used considerably on holidays as Dewali, Dussera, and pleasure parties.

36. Ganja, charas and bhang are preferred to alcohol, as they are cheaper, and it does not appear that alcohol is substituted in their stead.

37. Charas is a stronger preparation than ganja, and the intoxication produced thereby is more lasting in its effects. The intoxication resulting from the use of ganja-smoking lasts usually for about a couple of hours. The intoxication produced by bhang results in a condition of hilarity and hallucinations of a pleasurable nature, and during this condition the appetite is enormously increased.

39. Smoking ganja and charas appears to be more injurious than the drinking of bhang, because drinking is indulged in to a limited extent, while smoking the drug is indulged in to a larger extent.

40. Ganja is commonly used as a medicine internally in digestive disorders affecting cattle. It is used by native practitioners, hakims, etc., as follows:—Juice of fresh leaves are used to the head as a parasiticide; it allays pain when dropped into the ear; also used as an astringent in diarrhœa, and as a diuretic and to check gonorrhœal discharges. The powdered dry leaves are used as an application to ulcers to promote granulations; also used locally to check inflammations as erysipelas and as an anodyne to local neuralgias.

41. (*a*) Native practitioners use it as such in small doses.

(*b*) This is a popular belief, but of the truth of it there is no reliable evidence obtainable.

(*c*) It is used as such in some parts of Bengal.

It undoubtedly acts as a stimulant and sedative, and people accustomed to its use can bear hunger and work without food for a longer time; so in this way it prevents bodily waste of tissues.

42. I do. I have not known a case where the moderate use of the drug has done harm.

44. Primarily stimulant; secondarily anodyne, sedative and antispasmodic. Narcotic in large doses. In small doses it is said to allay hunger; in moderately large doses it is believed to increase the appetite; diuretic and parturifacient properties have been assigned to it, but these latter require confirmation. Narcotic and intoxicant effect usually lasts a couple of hours. Slight longing or uneasiness is felt by the want of it. No marked after-effects. The following have been noted as occurring after its use:—Dullness, laziness, redness of the conjunctivæ, thirst, appetite increased.

45. The habitual moderate use of these drugs produces, I think, no deleterious effects. I don't think it impairs the constitution or injures the digestion or appetite; neither have I known any cases where it caused dysentery, bronchitis or asthma; nor taken in moderation does it destroy the moral sense, nor induce laziness, though it undoubtedly stimulates, I think, the sexual appetite. I do not think in moderation it deadens the intellect or produces insanity. It has always appeared to me to be simply the exciting cause of insanity. Of itself, and without any predisposing cause, it never excites symptoms of insanity when taken in moderation, *vide* paragraph 46.

46. When taken in excess, and long continued, it impairs the brain and intellect, making the person taking it heavy, stupid and listless. In this way it also impairs the moral sense and induces laziness, with a tendency to immorality. I do think that it produces temporary acute mania when taken in very excessive doses, with or without any predisposing cause. This mania, where there is no predisposing cause, passes off in a short time. Where there is a predisposing cause, it merely excites the disease, which may or may not be permanent. This permanent form may, though commencing as acute, end in any form of insanity, according to its heredity or predisposing cause. If temporary insanity is caused, the symptoms are undoubtedly set up again by the excessive use of the drug when resumed. There are, as a rule, no typical symptoms to distinguish it from insanity induced by other causes. Many insanes who have no recorded ganja history confess to the use of the drug.

There is no doubt that there are insanes whose history shows they were addicted to the drug, who have been admitted to this asylum, and whose insanity was not due, in my opinion, to it, and the use of it was either a coincidence or was taken as a medicine for the relief of pain, or to allay mental anxiety and brain disease. I have no evidence to prove that insanity may often tend to indulgence in the hemp drugs by those who are deficient in self-control through weakened *intellect*; but my opinion is that this is so.

47 and 48. No.

49. Yes; charas-smoking has the effect of increasing the sexual appetite, and is used for producing this effect. The habitual use of the drug as an aphrodisiac is believed to produce impotence. Hindus are said generally to use bhang as a drink in small doses for producing the effect as an aphrodisiac.

50. It is not used for this purpose in excessive doses.

56. Among natives dhatura is sometimes mixed with ganja to increase the intoxication.

57. Ganja is said sometimes to be eaten in a pan-ka-bidda.* In this form it produces slight intoxication; but this is only the case in excessive habitual consumers.

57 (*a*). Besides ganja, charas and bhang, there is a preparation in the form of a sweetmeat in thin, square, semi-transparent, light-greenish pieces, about 2½ inches square. It consists of bhang, sugar, butter, flour and milk. This is also eaten to produce its intoxicant and narcotic effects. This preparation is known and sold in the bazars as under the name of majum.

Oral evidence.

Question 1.—Apart from my Colaba Asylum experience I have had no special experience in insanity, though I had of course the usual Netley course. The Colaba asylum is my sole charge; but I have on two occasions officiated in other appointments in addition to my duties. I have acted as Professor in several chairs in the Grant Medical College and as Third Physician, Curator of the Museum and Pathologist in the Jamsetji Jeejeebhoy Hospital, as well as Presidency Surgeon on several occasions. I knew of ganja-smoking before my asylum experience; but I had no opportunity of studying its effects. I probably heard of it as a cause of insanity.

I think that alcohol is much more deleterious than hemp drugs. It produces organic changes in the system. I have inquired from others and have not found that such changes take place from hemp drugs. Nor do I know of them from my own knowledge. I think if they had existed, they would have been discovered ere this. Alcohol produces induration of the brain when taken to excess for a prolonged period. It also produces disease of the liver and other organs, which is not produced, so far as I know, by any of the hemp drugs. The hemp drugs "impair the brain" in the sense of impairing its activity without producing pathological change. It would be better to say that they "impair the intellect." I cannot remember at present other points of comparison in respect to injurious effects. The prolonged excessive use of ganja and charas (not bhang) makes a man heavy, dull, stupid; but these same symptoms, and worse, would probably be produced by taking alcohol in excessive doses for prolonged periods. In regard to the moderate use, I think that it does no harm in either hemp drugs or alcohol. I have been speaking of and comparing the injurious effects of the excessive use of both. I have not gone into asylum statistics on this point of the difference between them in regard to insanity; but my opinion is clear and (I believe) would be supported by statistics. As to opium, I think it less harm-

* Pan-ka-bidda—a small three-cornered packet, usually fastened into shape by a clove, consisting of pan-leaf, betel-nut, chunam and cardamom seeds. The above ingredients are wrapped up in the pan-leaf, and the edge of the leaf fixed by a clove.

ful than either whether it is eaten or smoked. I know of no organic change taking place in the human system from opium. The difference between hemp drugs (except bhang) and opium is one of degree: the excessive use of ganja or charas being more deleterious than opium. I think bhang is probably, if possible, less deleterious than opium. I think that the opium and hemp drug habits are about equally practised. Therefore the Colaba Asylum statistics seem to bear out my view; for the admissions from hemp drugs are set down as higher than the opium cases. The alcoholic habit also is not extensively practised by natives. I speak only of Bombay. There the use of opium and hemp drugs is more general among the natives than that of alcohol. I have no statistics, but give my own opinion only. The admissions to the asylum are from other parts of the country (principally Bombay and the surrounding talukas); but my remarks regarding the people generally are confined to Bombay. I cannot say whether all the mill hands drink. I cannot give detailed statistics of different classes. I have only stated my general impression that there are more hemp drug than alcohol consumers in Bombay. I refer to hemp drugs taken as a whole. Those who in a year take hemp drugs are more numerous than those who take alcohol; but I think that the habitual consumers of alcohol are more numerous than the habitual consumers of hemp drugs. Ganja is habitually consumed, bhang (as a rule) more occasionally and by a large number of the population on festive occasions.

Question 46.—When a man is received in the asylum, papers in forms A and C are received with him. This constitutes all the information we receive as to previous history in respect to cause. Form C is all we have. The medical certificate form A usually deals with symptoms only and does not deal with cause. I find that form C is signed as a rule by the medical officer who examines the patient. He gets his information from various sources, generally from the patient's friends, from personal observation, or any other source available. I have been Civil Surgeon. My experience was that I got the information regarding cause from the friends or from the police. Very often I had cases where no friends came. In such cases I trusted to the police or wherever I could get my information.

At the asylum we supplement this information by enquiry from the patient's friends when they visit the asylum. That is, when no cause is previouly assigned, or where a cause has been given and we are able from the friends to elicit the true facts of the case. We very seldom change an entry of cause already made from the information of the friends. The entry in our register is made immediately on the patient's admission. The case is written up then, and the cause is entered. The patient is not kept under observation before entering cause, if any cause is given in the form. Friends come to visit insanes in the large majority of cases, when the patients are from the city of Bombay, but not generally otherwise. Any time between sunrise and sunset visits may be paid; but generally between one and four. Generally, therefore, the inquiries from friends are made by the senior apothecary (in my absence). He has no instructions, except that he is to make the inquiries where the entry in regard to cause is blank. He works at his own discretion. If the patient's friends alleged the ganja habit, that would be enough to make the entry of ganja as the cause, if we had no definite particulars as to cause from the officer signing the forms. The apothecary would differentiate between the moderate and excessive use of the drug; but if only the moderate use were alleged, we would probably enter that cause if no other cause were elicited. This has been generally the practice. There is no record of the enquiry except the mere entry of cause.

I think that if dhatura were used to increase intoxication (*vide* answer 29 (*b*)), that though generally similar in effect to ganja, it would have a stronger effect in inducing acute maniacal symptoms, but not in predisposing to permanent insanity. I do not think its effects are taken into account either in the police inquiry or by the apothecary. I do not think that ganja either predisposes to permanent insanity, though it produces symptoms of acute mania. I do not think that a case due to ganja would be differentiated from a dhatura case except from the history. The symptoms are much the same. Dilatation of pupils is generally absent, I think, in hemp drugs cases, otherwise there is no differentiation of symptoms. The redness of conjunctiva is also mentioned, and I have, I think, noticed it, though I have not paid attention to these symptoms until recently. I mean it is only in habitual consumers in excess that you have this dull eye with red and congested conjunctiva. I do not mean that this is a symptom of acute mania from hemp drugs. In transient mania you also get dilated pupils; but I doubt if they would be so much dilated as in dhatura. In transient mania also the symptoms are of short duration. Without a history I think it would be difficult to diagnose between the form of insanity known as transient mania and dhatura insanity. I would not say impossible. Taking hemp drug insanity, dhatura insanity and transient mania, they all resemble each other: to differentiate them would require previous history and (if possible) pumping out of the contents of the stomach. I have once or oftener as Civil Surgeon of Dhulia pumped out the contents of the stomach. That was for treatment, not for diagnosis, as I was already in possession of the facts showing that the cases were dhatura poisoning. I have conducted post-mortem examinations in the asylum on deaths in the asylum. Of course we cannot do it if friends object. I have never seen tissue changes in the brain, but I cannot remember any death of a hemp drug case in which I looked for pathological changes in the brain. I cannot refer to a case. I have never heard (I may add) of such changes. I have consulted the pathologist at the Grant Medical College; and he also has found no such cases, and is unaware that such changes exist. Taking the important place that history holds in the diagnosis of cause, I think that we have a very unsatisfactory basis. The history is often unreliable. Thus even ganja taken for relief against what is causing insanity may be entered as the cause. We do the best we can; and where a man is given to ganja-smoking, I think it should be put down in the absence of other known cause; for there we have a tangible fact. I think there is no doubt that ganja in excess does cause transient insanity. I refer only to the excessive use. As a scientific basis of any theory of the connection between insanity and hemp drugs, these histories are unreliable, but they are useful in giving a clue in respect to treatment.

I take of the 1892 cases, No. 4, Damodhar. Here I have history (on further inquiry) of ganja, bhang and majum; but nothing was noticed until

the death of his wife and child, when he changed his habits and was found to have taken to drugs. There is no hereditary tendency; and I think that the history and symptoms both point to hemp drugs, though the bereavements may have had to do with it. I should therefore say the cause was hemp drugs. In Vithu's case (No. 8) I have been unable to get further information. The man was sane with us; but he had to be shown in our books; and his friends said he had taken ganja. The case looks like it.

In case No. 5, Moti Hemrai, I do not believe ganja was the cause: (1) The case was melancholia with excitement, not mania; this might be excited not caused by hemp drugs; (2) He died from dropsy and old age, shewing disease of kidneys, and possibly consequent disease of the brain; this would be sufficient cause; and (3) the prolonged absence of improvement.

Case No. 10, Hirji Makji, is undoubtedly not a ganja case, I think. The man died of anæmia and fatty degeneration of the heart.

Case No. 12, Vishnu Laxmon's father, was epileptic. The man ate tobacco very largely, and his brother now attributes his insanity to this. He says he never saw him take ganja. Disappointment is often a cause of insanity where there is predisposition, as in this case from his father's epilepsy. He was also dissolute in life. I do not believe that this is a ganja case.

Case No. 2, Yeso Ragho, is probably not a ganja case. The partial paraplegia shows that brain disease is the cause; and melancholia is the natural form for the disease to take in that case. I reject this as a ganja case.

Case No. 11, Deolo, is a very doubtful case. I do not believe the insanity was primarily due to ganja, though that may have been the exciting cause. I have been unable to get more information in this case.

Cases No. 3 (Motiram), No. 6 (Mahomed Safdar), and No. 7 (Chintaman) are cases where the cause rests on the statement of friends.

In the first of these three cases, I have ascertained from the Aden Staff Surgeon that this man's companions denied that he ever smoked ganja; and the first class Magistrate writes that he cannot ascertain anything about the alleged ganja habit. I think myself that though a case of acute mania, it was not due to ganja, because it came on in a very insidious way which is unusual in ganja, and was preceded by moroseness and tendency to wander. Besides the long period under treatment is against the theory of hemp origin.

In case No. 6 no information can be obtained. It is a doubtful case; the man is still in the asylum, and not much improved and denies the use of ganja; but probably as a beggar he did use the drug, and that may have been the exciting cause; but that is only a probability. I would not remove this from the category of toxic insanity without better information, but I regard it as a very doubtful case.

In case No. 7 I think that ganja was the exciting cause of the insanity—the exciting cause only, because there was no improvement in this case. But after his discharge, the man suddenly recovered, and has not had another attack up to now. This is another reason for thinking it not a ganja case. If addicted to hemp drugs, he would probably indulge and have a relapse.

Case No. 1, Nama's case, is in my opinion a case of acute ephemeral mania due to hemp drugs. I think the outbreak of 26th July was simply anger, and had nothing to do with mental condition. I believe the information about ganja was obtained from his friends.

Case No. 9, Gurudatt, is not a ganja case. The ganja may have been the existing cause, but not the predisposing cause. We have further information about the ganja habit before he was at present taken ill. But there was previous insanity also. I look on it as a case of tendency to insanity, possibly at the time excited by ganja, but not due to hemp drugs.

In case No. 13 there is no further information. The fact of want of improvement is against ganja. I should not put the case down to hemp drugs. As now advised, I would not put it down as a ganja case, although I would still leave it on my books thus, simply as a clue. Though I believe the ganja could only be an exciting cause, if any.

Three cases (No. 1, No. 4 and No. 8) out of the thirteen are all that I regard as hemp drugs cases. I therefore have now ground to conclude that out of all the admissions to the asylum in 1892, only three were due to hemp drugs, though hemp to my mind acted as an exciting cause in some of the others as shown above. I would only return these three as real cases of toxic insanity. I therefore regard the system of reporting cases as an unsatisfactory basis for founding any conclusion as to the connection between hemp drugs and insanity; but it is the best we have. I regard it as better not to enter cases in the "unknown" column if we have any sort of evidence as to cause. The entry is only to assist us. This must be borne in mind in estimating the value of our returns. The entry is made to prevent certain evidence being lost sight of, and it is so far reasonably probable and is better than nothing.

I think that the hemp drugs have been unfairly charged with causing insanity; the information is largely inaccurate. And when we have no accurate information, we have to accept anything that may seem to be a possible cause. Where a coincidence of ganja-smoking exists, the insanity is generally attributed to it, though in my opinion often very unfairly.

---

68. *Evidence of* Surgeon-Lieutenant-Colonel M. L. Bartholomeusz, M.B.,* *Civil Surgeon, and Superintendent, Lunatic Asylum, Ahmedabad.*

1. Opportunities limited only to cases seen in the asylum.

2. Yes; bhang, charas and ganja.

19. Yes; so far as I know.

23. Bhang is never used for smoking, so far as I have been informed.

28. (*a*) Smoke 2 pies weight of ganja, costing 3 pies in value.

(*b*) Smoke about a rupee's weight of ganja costing about eight pies.

29. Ordinarily mixed with tobacco. I have heard of no other admixtures.

* Was summoned to attend at a meeting of the Commission for oral examination, but was unable to appear.

I do not know of any preparation, such as bhang massala.

30. Ganja is mostly used in this district, I believe, and is mainly confined to the male sex. Children never use it.

31. Yes; but moderate consumers can also easily break it off; and there is no tendency for the moderate habit to develop into the excessive under ordinary circumstances.

36. No.

39. Most of the cases which were under my observation were cases of ganja-smoking resulting in insanity. Certain constitutions seem more prone to insanity under the influence of ganja, either from abuse of the drug, or from injudicious use of it before the habit is formed, especially in early adult life.

41. Not sufficiently acquainted with the subject to offer an opinion thereon.

Under exceptional circumstances it may be useful under (*a*) and (*b*) to those accustomed to its use; but the probability is that its ill-effects in the long run counterbalance its beneficial effects; therefore I am inclined to say that even the moderate use of it is not to be encouraged.

45. I have not seen a sufficient number of cases to enable me to give a definite opinion on the subject discussed. That it brings about insanity I have no doubt; but, as mentioned before, it is the abuse of the drug, or the injudicious use of it by young people unaccustomed to its use, which unhinges the intellect. But the prognosis in these cases of insanity is generally favourable, the patient generally recovering within six or eighteen months when under treatment. Mania is the usual form of insanity, and on recovery the patient is liable to a relapse if he resumes the habit of ganja-smoking. This would lead me to believe that ganja-smoking is the predisposing cause of the insanity. There are no typical symptoms. When insanity results from ganja, patients on recovery generally attribute the cause to ganja.

This is all the information I am in a position to offer with reference to ganja.

---

69. *Evidence of* Surgeon-Lieutenant-Colonel W. McConaghy, *Civil Surgeon, and Superintendent, Lunatic Asylum, Poona.*

1. Reference to books, conversations with persons familiar with their uses, and observations on patients whilst under treatment in asylum, etc.

2. Yes; flat ganja is usually procurable here. They are locally known as bhang, charas (not generally used here) and ganja.

19. In the absence of bhang, ghota, which is prepared by making or rubbing down ganja in a vessel, and mixing it with water, is occasionally drunk as a substitute for bhang.

23. Bhang is never used for smoking.

28. Habitual moderate consumers of bhang require half a pice worth or one tola per day. An excessive consumer requires two annas worth or from 15 to 20 tolas daily. A moderate consumer of ganja requires about half a tola, costing about half an anna. An excessive consumer of ganja requires about four times the above amount.

29. Bhang is rubbed into a thin paste with water. More water is then added to it, and ordinarily mixed with sugar and black pepper. Exceptionally, in addition to the before-mentioned, poppy seeds, rose petals, fennel, nutmeg and almonds are added to give it flavour and taste, and rarely kasni seeds (*Cichorium endivia*). Dhatura is sometimes added to bhang to increase its intoxicating properties.

Ganja is generally mixed with an equal quantity of tobacco to moderate its action, and exceptionally with dhatura or opium to add to its intoxicating properties. Among gosains and bairagis a mixture of ganja, dhatura, nux vomica, aconite, opium, and even, it is said, white arsenic and ras kapur (an impure mixture of mercurial chlorides) is used for smoking and called "panchratni chillum."

Charas is said to be generally mixed with six to eight times its bulk of tobacco to moderate its action.

Yes; bhang massala consists of black pepper, fennel, rose petals, poppy seeds, nutmeg and kasni seeds.

30. The consumption of these drugs is practised both in solitude and company; but, it is said, to a greater extent in company. It is chiefly confined to the male sex. The habit is generally contracted after puberty. Women and children do not, as a rule, use these drugs. Some prostitutes are known to use bhang and ganja.

31. The habit of taking these drugs is not easily formed; but when formed, it is difficult to break off. There is a tendency in moderate consumers to develop into excessive consumers.

32. Bhang being considered a favourite of the god Shiva, it is drunk by many on Maha Shivaratra day. It is not considered essential, and is generally taken in moderation. It is indulged in during the Shimga holidays for creating mirthful sensations, and usually temperately. The practice is not likely to lead to the formation of the habit or be otherwise injurious.

36. There is not sufficient reason for thinking that alcohol is now being substituted for any of these drugs.

37. Charas and ganja produce immediate intoxication, the effect of the former lasting longer. Ganja-smoking does not lead to excessive narcotism, and the effects pass off sooner. The narcotism induced by bhang will vary with the quantity drunk. It comes on later and lasts for a longer time than that from ganja.

39. No; the reverse is generally considered to be the more correct. Ganja and charas-smoking are more injurious than bhang-drinking, in consequence of the nervous system being more readily affected through the pulmonary than the digestive system. The above statement is supported by the admission into the asylum in 1892 of six cases attributable to the use of hemp drugs. Of these, five were due to ganja-smoking and only one to bhang-drinking. The type of insanity resulting from excessive use of hemp drugs is almost invariably mania of the acute form.

40. They are never prescribed alone by native vaidyas or hakims; but bhang forms an ingredient of some prescriptions. Bhang is used in the treatment of cattle-disease.

41. (*a*) The moderate use of ganja or bhang is said to be beneficial to the digestive system and to give (*b*) staying-power under severe exertion; (*c*) and (*d*) it does not serve as a febrifuge or preventive of malaria.

42. The moderate use of these drugs is probably harmless. I have known a few moderate consumers of ganja and bhang to enjoy good health and long life.

44. The moderate habitual use of these drugs, especially bhang, is refreshing, slightly intoxicating, and creates appetite. The effects last for about six to eight hours. Feeling of depression, blunting or impairment of taste, slight feeling of heaviness in head are the usual after-effects. The want of subsequent gratification causes longing and uneasiness.

45. The habitual *moderate* use of bhang or ganja does not injure the constitution in any way. It does not injure digestion or cause loss of appetite. It does not cause dysentery, bronchitis, or asthma. It does not impair the moral sense or induce laziness or habits of immorality or debauchery. It does not deaden the intellect or produce insanity.

46. The habitual excessive use of bhang or ganja impairs the constitution, injures digestion, causes loss of appetite and bronchitis, impairs the moral sense, and induces laziness. It may deaden the intellect and produce insanity, especially in those predisposed to nervous affections. The type is generally acute mania, and in about 50 per cent. of a temporary nature. Patients discharged cured are liable to a recurrence of mania if the ganja habit is resumed on returning home. The majority of insanes from ganja usually confess to having taken the drug.

47. The habitual moderate use does not appear to be a hereditary habit and does not affect the children.

48. I am not aware of any case in which the habit could be considered hereditary, or the children in any way affected by its use.

49. The moderate use of bhang or ganja is practised as an aphrodisiac, and said to be used by some prostitutes for this purpose. The use as an aphrodisiac is more injurious than that as an ordinary narcotic, as it may induce to sexual excesses. It does not produce impotence.

50. The excessive use of these drugs may lead to impotence.

56. The effects of hemp drugs in moderation and excess are modified by the administration of the following substances, *viz.*, dhatura and opium increase intoxicating effect, nux vomica and cantharides appear to increase the aphrodisiac action.

57. When ganja or charas is eaten or drunk, the effects are more marked than in the case of bhang. Ganja or charas is rarely taken in this way, and then only in the absence of bhang.

57. (*a*) I cannot offer any further information on these points.

The above questions have been answered in consultation with Assistant Surgeons Rao Saheb Bhicajee Amroot Chobhe and Dattu Ganesh Sabnis, teachers in the Byramjee J. Medical School, Poona, the former of whom has considerable local experience in these subjects.

Oral evidence.

Question 1.—I have had no special experience in England regarding insanity. I am of nearly twenty-five years' service, the last fifteen of which have been passed in civil employment. I have been in charge of the Dharwar Lunatic Asylum for about six or seven years, the Colaba Asylum for a very short period, the Poona Asylum for broken periods, amounting to about two years. I was only in charge of the Poona Asylum for the last three months of the year 1892.

Question 29.—I have seen a number of cases of supposed dhatura poisoning. I have never seen dhatura used with the hemp drugs. The information on this point was obtained from the Senior Assistant Surgeon. So also as regards "panch ratni" my information is second-hand. I believe it is true, as stated in my answer 56, that nux vomica and cantharides increase the aphrodisiac properties of the hemp drug. These drugs are generally mixed with bhang in the liquid form. I have seen a liquid preparation which was said to contain these drugs, though I have never seen it actually prepared. I don't understand why nux vomica should be mixed in the preparation called "panch ratni," for I am not aware that it is an intoxicant. Nux vomica is a tonic, and serves that purpose in the preparation named. Aconite is not intoxicant, but it is given to reduce fever, and is a tonic. Arsenic is not an intoxicant, as far as I know. I have little experience of the impure chlorides of mercury. All these four drugs are more probably admixed for their tonic properties. Opium would supply the intoxicating element combined with the ganja and dhatura. I believe the "panch ratni" is prepared for smoking. I think it natural and likely that fakirs and bairagis should take such a drug in the circumstances under which they live. I don't believe that these people take strong drugs to excite interest or admiration, but for the physical benefit expected from them. Arsenic inhaled would probably be quicker in its action, but I doubt if it would be more potent in its effect than if it were taken into the stomach. I think cantharides would have its active principle destroyed in the process of smoking.

Question 46.—I think it is ganja and not bhang which is likely to produce bronchitis. Bhang would only do so as a secondary effect if it weakened the constitution. It would not have the direct effect any more than alcohol would. I believe ganja does it by irritating the lining membrane of the tubes of the lungs. Bhang used in excess would, I think, be more likely to produce dysentery than ganja would, because it irritates the lining of the stomach and bowels.

I have seen and treated a number of cases of temporary insanity, caused, as I believe, by the hemp drugs, outside my asylum experience. Such cases recover when the habit is discontinued. The longest period such cases have remained under my observation is ten or fifteen days. I cannot give the details of any such case. I don't think these cases would present any phase of the subject of hemp drug insanity which we could not ascertain equally well from asylum cases.

When a case comes to the asylum, it is accompanied by a certificate in Form A, a statement in form C, and an order from the Magistrate. I fill up the asylum register from Form C immediately on its receipt. It contains details, from which the different headings in the register are filled up. The register is filled up by the assistant at the time of the lunatic's admission. According to my idea of asylum practice, the entries must be in accordance with Form C. If the *cause* is entered as unknown, it must be so entered in the register. An alter-

ation probably would be made if information of a reliable character could be obtained, but this is not often done. The alteration would not be made without the permission of the Magistrate. Form C ought to be filled up by the Magistrate. That has been my experience in four other stations. The Civil Surgeon has not the same facilities as the Magistrate for collecting the required information as to history and cause. The case comes to the Civil Surgeon for observation only. As Superintendent of the Asylum, I should not alter the register, of which the entries have been derived from Form C, without reporting the matter to the Magistrate. Any alteration of the kind would have a record in the shape of an erasure and a reference to the Magistrate. The Magistrate has the facility of making enquiry that is supplied by the attendance of the relations in some cases. I don't know the procedure followed by the police. In the case of Guljar Shah the entry in the asylum register is ganja-smoking. That does not agree with head 12 in Form C, where the entry is "The abovementioned ganja-smoking and religious and isolated habits," and the assistant admitted to me that a mistake had been made in not copying the whole entry which appears in Form C. In the case of Rangnath Trimbak, the cause entered in the asylum register is "Drinks bhang," while the entry against head 12 of Form C is "Unknown." It is probable that the entry in the register was taken from the entry against head 6 of Form C, which is apparently copied *verbatim*. This was not in my time, but I think that if an entry in Form C shows that the lunatic drinks bhang it would be a mistake to put cause unknown against head 12 of the form, even though bhang may not have been the only *cause*. In the case of Trimbak Vinayak, the entry against head 12 of Form C is "Ganja-smoking and abstinence from food," and in the register the cause is put down as "Ganja-smoking." This occurred before my time. The Superintendent may not have considered that abstinence from food was an existing cause, but I think he was wrong in making the entry he did. In the case of Laxman Nandram, the entry "Ganja and liquor" reverses the order in which the drug appears in head 6 of Form C, and is contrary to head 12 of Form C, where the entry is "Unknown." I can't explain why this was done. In the case of Hari Trimbak, the entry against head 12 of Form C is "Unknown beyond the habit of smoking ganja," and in the register "Ganja-smoking." In the case of Parasram there is no entry of *cause* in Form C, but against heads 11 and 12 appears: "He had an illness seven years ago, but does not give a clear account." The register shews "Ganja-smoking." In these six cases the register entry does not agree with the Civil Surgeon's certificate, and there ought to be something on the record to explain the difference. I cannot explain the procedure of that time, for Dr. Hughes was in charge and the assistant is dead. It is from this register that the annual returns are compiled which show these six cases as the only hemp drug admissions of 1892.

In the case of Guljar Shah there is no further information beyond that furnished in the papers. I think ganja has been properly entered as the *cause*. It was in my opinion the chief and the existing cause; and I think that, if the man had not taken the ganja, he would not have become insane, although the ascetic and isolated habit may have predisposed him towards insanity. The further information that has been gathered by recent enquiry in the case of Rangnath shows that the bhang-drinking was moderate, and in accordance with what I had previously been told. But my private opinion is that the bhang drinking must have been greater. As a rule the insanity from bhang drinking passes off quickly, and I think there must have been a predisposing cause in the present case, because the man had previously been insane, and his present attack had lasted two and a half years. I believe that country liquor is more likely to cause insanity than bhang, and I have no reason to doubt that in the present case the man did take liquor, as he himself said. The case may therefore have been due to both liquor and bhang, and liquor may have been the more important factor of the two. The asylum records show that during the last five years there have been 31 admissions from ganja, 1 from bhang, and 10 from country liquor, and I therefore regard liquor as a more prolific cause of insanity than bhang.

In the case of Trimbak Vinayak, I think the *cause* is ganja, the effects of which were increased by the abstinence from food. In the case of Laxman Nandram, the lunatic was insane for two and a half years before he came into the asylum and one and a half years since. I see no reason to doubt his statement that he only smoked ganja occasionally and drank liquor frequently for years. The dose of ganja, as shown in the recent enquiry, is moderate. If the man's statement regarding his drinking is accepted, I think it may have been, as much as ganja, the existing cause, or perhaps the more important cause. In any case, there was probably some predisposing cause.

In the case of Parasram, the recent enquiry has not resulted in confirming the alleged ganja habit. But I think nevertheless that the man's insanity was due to ganja, because he admits the practice; and I do not believe that he gave up the habit five or ten years ago. He says this sometimes, but at other times he admits the habit. His appearance also confirms me in my opinion. The fact that in the recent enquiry people who knew the insane say that they never saw him indulge in ganja makes us regard the case as a doubtful one. If I were preparing statistics for the purpose of showing the effects of hemp drugs, I should not class this as a hemp case.*

In the case of Hari Trimbak, the Civil Surgeon evidently had doubts as to the cause of insanity. I have never known insanity to arise from cholera, though the disease might predispose it by weakening the constitution. I don't attribute the attack of insanity in this case to the cholera. If the insane had not resumed his ganja habit after recovery from the cholera, I don't think he would have become insane. The cholera weakened the man's constitution and rendered him more liable to the ganja poison.

Out of the six hemp cases admitted to the asylum in 1892, I would only exclude the two cases of Rangnath and Parasram for the reasons given above.

The usual type of hemp drug insanity is acute mania. Acute mania may be due to various causes.

* *Extract from a letter No. 112, dated 6th December 1893, from the Magistrate, 1st Class, Bhusawal, Khandesh, to the Superintendent, Lunatic Asylum, Poona, read over to witness.*

* * * * * * *

"None of the persons who knew anything of Parasram says that he was ever addicted to smoking ganja or taking any other narcotic or alcohol in any form whatsoever. There is nothing except the medical certificate (copy not retained here) sent you that he ever smoked ganja at all."

* * * * * * *

There are no typical symptoms that I am aware of to enable you to diagnose hemp drug insanity. Ganja cases generally recover rapidly. Cases arising from mental shock are of longer duration. To diagnose by this symptom, therefore, the patient must be under continuous observation. It is nevertheless the practice to enter the cause immediately on the admission of a case to the asylum. But it is supposed that the Civil Surgeon has had the man under observation for a week or ten days more or less, and has diagnosed the cause. Insanes are rarely cured by the time they reach the asylum. The Civil Surgeon only keeps the man long enough to satisfy himself that he is insane. As a rule the Civil Surgeon's diagnosis is accepted, but if the Superintendent has reason to think the diagnosis is wrong, he ought to change it. As a fact, I have not known of any case of such change since I have been at Poona. The symptoms are of short duration in the majority of cases, about a week or ten dys. If it is a second attack, or the indulgence has gone to great excess, the insanity would last longer. I know the insanity of the kind called transient mania. I believe it to be caused by mental shock or nervous shock, or a debauch of wine, bhang, or other intoxicants, especially by a person of weak temperament. I have known fever to produce it in the latter case. It is most often due to moral causes, and not to toxic physical causes, though these may produce it. I think that transient mania caused by ganja would be difficult or almost impossible to distinguish from the same form of insanity due to any other case if history were wanting. I think I have noticed that persons insane from bhang have red and watery eyes. This symptom may be produced by fever, but is generally present in bhang cases. The use of hemp is likely to produce contraction of the pupil, but in great excess to the point of intoxication or insensibility it might cause dilatation. I do not think short duration, redness of eyes, and dilated pupils would be sufficient to diagnose a case upon. These symptoms would point to hemp insanity rather than any other cause, but they are recognised as symptoms of transient mania due to other causes than hemp drugs. But I think redness of eyes is more marked in hemp insanity than in other cases. I think an accurate history is essential to diagnose the cause of insanity. Hemp drugs may predispose, but I should rather regard them as exciting cause of insanity. I think the hemp drugs have slightly cumulative effects, but not more so than alcohol. They are not to be classed with digitalis or arsenic in this respect. For diagnosis, duration of the habit, the amount of drug used, and hereditary history are necessary. I think that if the information regarding a man suffering from acute mania were nothing more than that he was ganja smoker, the ganja should be regarded as the existing cause in eighteen cases out of twenty. The mere statement of the ganja habit would be sufficient if there were no reason to disbelieve it.

The man whose case is reported by Mr. Fox was brought to me occasionally as an out-door patient a year ago. I have endeavoured to get further information about him, but Mr. Fox is at present in Bombay, and he has not mentioned the man's name. My recollection is that I was informed that his attack was due in great measure to the persecution he had suffered on account of his conversion to Christianity, and that he had taken to smoking ganja in consequence. I only saw the man two or three times as an out-patient, and am unable to exclude other possible causes to account for his mental condition. I remember telling Mr. Fox that if he allowed the man to go on smoking, he would certainly get an attack of acute mania. I formed this impression from the man's looks, which appeared to me to show that he was verging on insanity. The information about the cause of the man's distress came from his friends, who either told me or the house surgeon.

I have been observing cases of hemp drug insanity for seven or eight years. I have not observed the effects of the hemp drugs apart from insanity. I have spoken to many people who have told me they were moderate smokers, but seen no effects among such persons. I do not know any excessive consumer, nor have I had to do with any such persons, except in the way of treatment for mental disease. My impression of the connection between hemp drugs and insanity is therefore not based on any knowledge of the general consumption and effects of the drug among the people.

---

70. *Evidence of* Surgeon-Major H. McCalman, *Civil Surgeon, and Superintendent, Dharwar Lunatic Asylum.*

Oral evidence.

Question 1.—I am Superintendent of the Dharwar Lunatic Asylum. I came out in 1877 in the Indian Medical Service. The greater part of my time I have passed in civil employ. I was in military employ the first two or three years of my service. I was in charge of the Ratnagiri Asylum, but have had no English experience of insanity. I have been in charge of the Ratnagiri and Dharwar Asylums for a total period of seven years. I was not in charge of the Dharwar Asylum during the whole of 1892. I was absent from May to September. Since September 1892 I have been in charge at Dharwar. I did not gain much experience of hemp drug insanity at Dharwar.

Question 45.—When a lunatic is sent to me as Civil Surgeon for observation, he is locked up in a room, set apart for the purpose, under a proper guard, and kept under observation with a view to report to the Magistrate. At the same time I make enquiries of the police or relations, if any, as to the cause of insanity, not because I have to certify to cause, but to throw light upon the case. The Magistrate sends me a paper containing information as to cause. As Civil Surgeon, I think I should accept that information without further enquiry, if it contained a statement of cause sufficiently clear and definite. I should make enquiry to confirm the information; but I should not make any with the view of refuting it. The Magistrate's information is usually sent in a printed form (Form C). That form is passed on to the asylum, and the information it contains is treated by the Superintendent in the same way in which the Civil Surgeon had treated it. If the Form C contained a clear statement as to cause, I should

transfer it to the asylum register. It would be entered in the register within a day or two of the admission of the lunatic. I would accept it, because I think the Magistrate has greater facilities than I have to conduct an enquiry into the previous history of the patient, and because the diagnosis of cause depends practically exclusively on history.

I don't know through what officer the Magistrate conducts his enquiry. I should hesitate to accept the results of an enquiry conducted by a Head Constable unless they had been verified by the Magistrate. I am not aware of the procedure, and cannot say if it is usual for the Magistrate to verify the enquiry.

In the case of Dariappa, admitted to the asylum in 1892, I have read the remarks in column 5, and I am inclined to think that though insanity may have arisen from both liquor and ganja, the latter should be regarded as the predisposing cause.

I should hardly say that there were any typical symptoms in hemp drug insanity. The symptoms present are generally those of acute mania. It would, I think, be incorrect to say that all the symptoms which I have observed in hemp drugs insanity are to be found in cases of acute mania, due to other causes. The shortness of duration of the attack is, I think, suggestive of the hemp drug cause. To discover this sign the patient must be kept under observation. The cause is entered in the register directly the patient arrives. I do not recollect an instance in which I have found it necessary to alter the cause recorded by the Magistrate. The diagnosis of cause is that furnished by the Magistrate, when it is given. The opinion quoted in the remarks on the case of Raya-bin-Basapa that "habitual use of ganja may weaken the mind, while the occasional excessive use produces acute mania" is mine. I mean prolonged moderate use by the term "habitual use;" and I think the effect of that is to produce mental vacuity rather than acute mania; but I would not exclude the possibility of acute mania arising from such use.

In the absence of any other cause, if the ganja habit were asserted, I should accept that as the cause of insanity.

---

71. *Evidence of* Surgeon-Major D. C. Davidson, *Acting Civil Surgeon, and Superintendent of the Jail and Lunatic Asylum, Dharwar.*

1. As Civil Surgeon in various places, Superintendent of Jails, Acting Health Officer of Bombay, in native regiments, etc.

2. The only two varieties that I have been able to obtain in this district are ganja and bhang. Charas is practically unknown.

19. Charas does not appear to be used at all in this district, and ganja for smoking only.

23. Bhang does not appear to be used in this district.

28. (*a*) Roughly speaking, about two drachms and over.

(*b*) One ounce or more.

29. Tobacco is ordinarily mixed with the ganja. I have not met with instances in which the other articles have been used.

Bhang massala has been repeatedly described to me. It is generally stated, with some slight variations, to consist of bhang, opium seeds, cucumber, pepper, nutmeg, milk, sugar, etc.

30. Appears to be smoked indifferently in company or in solitude. Mainly confined to the male sex, and to no particular time of adult life. I know of no instance in which ganja has been consumed by children.

31. Appears to be easily formed, and as a rule difficult to break off. There does not appear to be any particular tendency for the moderate habit to develop into the excessive. Nothing more I should say than an occasional instance liable to occur in the habitual use of all stimulants or sedatives.

32. I am not aware of any.

36. I have not met with or heard of any instances.

37. Charas is practically unknown in this district as also drinking of preparations of bhang.

39. Ganja-smoking appears to be practically the only form in which the hemp plant is used in this district.

40. It is used extensively by the people themselves in malarial fever, rheumatism, dyspepsia, diarrhœa, and as a sedative, anodyne, etc., etc., but I am not aware of any school of Native Doctors recommending it.

41. It is used as a tonic for cattle, especially when the animals do not eat their food well.

(*a*) to (*c*) Stated to be so.

(*d*) Stated to be useful in dyspepsia, rheumatism, and as a sedative, anodyne, etc.

42. The moderate use of the drug would appear to be practically harmless. The instances of prisoners given in the accompanying form would seem in a measure to bear out this.

44. Said to have a soothing effect. Stated to be refreshing and not to produce intoxication in moderate quantities. It does not allay hunger; on the contrary, said to increase the appetite. The want of subsequent gratification produces longing and uneasiness, and sometimes a feeling of weakness of the extremities.

45. So far as I can learn, the moderate use of ganja in smoking does not appear to be either physically or mentally injurious, generally speaking.

46. Excessive use is liable to be attended with violent excitement terminating in insanity of an acute maniacal form characterised by a tendency to early recovery on discontinuance of the drug. Sufficient evidence as to hemp drugs being the cause of other forms of insanity does not yet appear to have been adduced.

47. In several cases the habit appears to have passed from father to son, but whether merely as the effect of association or hereditary transmission it is difficult to say.

48. The above would appear to hold good in both cases.

49. I have not been able to obtain information of their being so used or of their producing impotence.

50. I have not been able to obtain information of any cases in which the drugs were said to be so used.

56. I have no information of admixture of any of the substances mentioned except opium seeds in bhang massala.

57. Charas appears to be unknown in this district as also ganja drinking or eating.

57(*a*). Yes; that contained in the accompanying form, which contains the results of enquiries amongst the prisoners in the Dharwar Jail. The only preparation referred to throughout is ganja, which is used for smoking in this district.

---

72. *Evidence of* SURGEON-CAPTAIN W. E. JENNINGS, *Civil Surgeon, and Superintendent, Ratnagiri Lunatic Asylum.*

Oral evidence.

I am Superintendent of the Ratnagiri Asylum. I have been in charge just over a year since November 1892. I have had no other experience of a special character in respect to insanity. I had seen a few cases of people affected by ganja in regiments. They were cases of the temporary effects of ganja, rather cases of intoxication from ganja. I do not remember to have seen any cases of insanity.

I know of no literature dealing with the subject of hemp drug insanity. When I came here, I arrived at the causation of hemp drug insanity from the history, from such facts and history as I have been able to collect. I could not tell from seeing an insane person that his insanity was due to ganja. There is, I may say, a craving in some cases for the drug which is asked for. I have not recognized any special symptoms of hemp drug insanity. The type is generally a kind of chronic mania with occasional attacks of acute mania at longer or shorter intervals. Speaking generally, in coming to a diagnosis as to cause, I am guided wholly by the history. In inquiring I generally begin by asking the friends or the police if the man is addicted to any bad habits. If they seem to hesitate, I go on to ask leading questions, such as "Does he take liquor?" or "Does he take ganja?" If they say yes, then I ask, "In what form: does he smoke?" If they say yes, I enquire as to period and amount to ascertain whether he smokes it in excess. At the same time I inquire whether there is any hereditary history of insanity. I do discriminate between the moderate and excessive use of the drug; but this is only relative, for what is moderate to one man may be excessive to another.

I know from prescribing it that the effects of the drug are most uncertain.

If from the replies I found that the evidence showed the moderate habit, and if at the same time I had no evidence of any other cause, I should ascribe the insanity to ganja, disbelieving the evidence that the use was merely moderate. And if I got a history of the excessive use of ganja I should ascribe the insanity to that without hesitation, in the absence of any other cause. I always, however, ask about heredity and the previous state of the patient.

If I have a history of heredity and also a statement of the moderate use of the drug, I should be inclined to think the insanity was hereditary. I should inquire as to the degree of heredity, and consider the relative strength of these two factors. If it was a case of near heredity and the moderate use of the drug, I should exclude the ganja, and show the cause as heredity. If it were remote heredity and the moderate use, I should do the opposite. Speaking generally, if I had the moderate use of ganja and another cause, I should take the stronger cause. Thus, if a habitual drunkard used ganja moderately, I should show alcoholism as the cause. I could hardly give quantities as to what would be generally speaking the moderate and excessive use in a native. I should depend on what the friends said about the use being moderate or excessive, but I should disbelieve them, as above stated, if they said it was moderate, and there was no other cause of insanity. All the above refers to cases where I have to make inquiries myself; but I should never make any inquiry if clear cause were assigned in the papers received from the Magistrate.

---

73. *Evidence of* SURGEON-MAJOR K. R. KIRTIKAR, *Civil Surgeon, Thana, and Medical Officer, Thana Depôt and District Jail.*

1. I have personally known men who have for years used hemp drugs both moderately and immoderately, and I have had frequent opportunities of watching the effects of the drugs on them generally in the practice of my profession and otherwise.

2. Dr. Prain's definitions are correct, and may be accepted for this district. Bhang is also known as ghota in this district.

I may observe that Dr. Prain's remarks require some modification, where he says that "ganja consists of dried flowering tops of cultivated female hemp plants which have become coated with resin in consequence of having been unable to set seeds freely." The result of my observations on cultivated plants in two localities in Thana is that the resin is not the *result* of the seeds not setting freely, but that it is the essential condition of the whole plant. The plant is sticky to the touch, and has the strong odour of *sabja* (*Ocymum basilicum*). Hence the name *sabji* given to bhang. The stickiness is due to the resinous matter, which when collected in masses forms charas. This resinous exudation is seen in hemp seedlings even when they are too young to flower.

Dr. Prain further says that "the formation of seeds is prevented by the destruction of all the male plants." This is no doubt the usual practice for securing good compact leafy heads of flowering tops and for preventing the formation of seeds. It must not, however, be forgotten that although male and female plants exist separately, as a general rule there are some plants on which the male and female flowers co-exist. I mention this point particularly, because I do not wish it to be supposed that the mere destruction of male plants is sufficient to stop all seed formation.

19. Ganja is used for smoking. I know nothing about charas.

23. Bhang is never used for smoking, so far as I know.

28.

		Average allowance.	Cost.
Habitual moderate consumer.	Bhang	½ to ½ tola	½ anna per tola.
	Ganja	½ tola	2 annas per tola.
Habitual excessive consumer.	Bhang	2 to 4 tolas	½ anna per tola.
	Ganja	1 to 2 tolas	2 annas per tola.

29. Ganja is seldom, if ever, smoked by itself. It is always washed in water until the water comes out clear, and thoroughly mixed with an equal part of tobacco. Every drop of water is squeezed out of this mixed mass before it is used.

Bhang is always mixed with black pepper in the proportion of 10 grains (dried fruits) to every tola of bhang. It is finely rubbed on a curry stone, and strained through a piece of fine muslin. Persons who drink bhang for mere pleasure always add, besides black pepper, the following ingredients for flavouring the potion:—

Poppy seeds, ½ tola
Dried rose buds, ½ tola
Sugar, ½ seer or according to taste
Almonds, peeled, 1 tola.

} for every tola of bhang.

The usual quantity of water for the above mixture is half a seer. All these ingredients are finely rubbed with bhang on the curry-stone. This quantity is meant for two persons, who may be considered moderate in the use of the drug, or those who drink it only occasionally for mere pleasure, at any rate not for the purpose of getting intoxicated or becoming helpless.

Some add an equal or double the quantity of milk instead of water, which is a luxury. Ordinary bhang is drunk cold, never boiled. Bhang made with milk is called *ludgi* and is always boiled before use. If the drink of *ludgi* is required stronger, only half the quantity of milk is used.

In this district I have never heard of dhatura, opium, nux vomica, cantharides, or betel-nut being mixed with either bhang or ganja. The bhang drinkers and ganja smokers value the respective articles for their own sake pure and simple in addition to the flavouring agents and the tobacco mentioned above.

I *do not* know of any preparation such as bhang massala or any other massala being sold for the purpose of being mixed with either bhang or ganja.

30. In solitude a man may smoke a quarter of a tola of ganja all by himself and be none the worse for it. He may, after his smoke, follow his usual avocations without inconvenience. In the case of confirmed yet moderate smokers, a man is decidedly all the better for his smoke. He feels refreshed, if not enlivened, and works with all the more energy. He would be certainly miserable without it.

In company a larger quantity of ganja is required than that given above. The quantity under such circumstances depends on the number of persons, as also their respective smoking capacity. When in company, the chillum goes round from mouth to mouth in the manner of the "loving-cup" of wine-drinkers. Moderate smokers, when by themselves or in a company of three or four, seldom exceed a couple of chillums.

With regard to bhang, the man who drinks it in solitude must be looked upon as "given to it." In company bhang is drunk solely for pleasure and for the lively talk that follows such potions. Such persons seldom exceed half a tola per head.

Drinking bhang and smoking ganja, so far as I can judge from personal knowledge of the better classes of people, are absolutely confined to the male sex. It would be a gross breach of good manners were such a drink or smoke ever offered to the female sex. It is never allowed to children. Bhang preparations are, however, allowed to children medicinally in appropriate doses, and in such cases are doubtless productive of good. Boys in former days, so far back as thirty years,—such of them at any rate as had the misfortune to fall into bad company,—were known to me, who played the truant at school, and occasionally indulged in a clandestine drink or smoke; but the number of such truants has always been very small. Such boys have always been looked down upon, and in my experience have always turned out bad men in after-life.

31. In a well-regulated Hindu family it is difficult for young men to form the habit of smoking ganja or drinking bhang. Such practices in the commencement are always indulged in out of doors, in bad company. The reason is this. In the first place a boy has to know how to prepare ganja for smoking or bhang for drinking. The process of their preparation for use is always an elaborate affair. The use of either of these drugs is entirely different from that of tobacco or liquor. The latter are always obtainable ready for use in shops. Thus, if boys or young men were to commence such practices at home, they stand the risk of being discovered and reprimanded, for although a father may be a ganja smoker or bhang drinker, he very seldom is so depraved as to allow his son to follow in his footsteps; possibly he is aware that he himself is indulging in a bad habit, and would rather that his son did not imitate his example.

Judging from the effects bhang drinking and ganja smoking have on a novice in the vice, I should be inclined to the belief that it is not easy to contract either habit, unless the person is otherwise a depraved being who takes to bad habits at any cost. On the uninitiated, either drug acts as a distinct narcotic, and it does not take any thoughtful person long to find out that it is vicious to continue indulging in it.

The real beginning of a systematic use of either of these drugs, which constitutes a habit, is made under the impression that it relieves certain ailments. These ailments may be real or imaginary. For in the majority of cases of confirmed bhang drinkers and ganja smokers that I know of, the history is that they resorted to either of these for relief from their ailments. Ganja smokers say they took to ganja on account of chest complaints, such as asthma, and the bhang drinkers say that they took to bhang originally to relieve dyspepsia or habitual constipation. I must say as a medical practitioner of near eighteen years' standing that in such cases their initial use of the drug was thoroughly justifiable, though I do not for a moment suppose that their continuance of the practice can be considered to be equally justifiable, or even requisite. The habit, whatever may be its origin or cause, when once formed, is difficult to overcome. The man wants his smoke of ganja or drink of bhang at the hour he is accustomed to have it, or else he is unfit for his daily avocations. He misses it, and would do anything to have his customary allowance. The habit is difficult to form, but when once formed still more difficult to break off. So far as I know, there is no tendency in the case of ordinary men of moderate habit, living in society and in the

circle of their own homes, men who have to work for their living and minister to the daily wants of their wives and children, to develop into the excessive ganja smoker or bhang drinker. It is the men who have nothing to do in the world, and with the world—the Hindu ascetics who go under the name of gosains and bairagis—who could be really called the excessive smokers and drinkers of ganja and bhang respectively. But of these in my answer to question No. 32.

32. Bhang is drunk during the Holi holidays by men who can stand it, for mere pleasure and harmless excitement. It is by no means a custom. It is also drunk on Mondays during the Hindu month of Sravan, and on the Maha Shivaratri day by the worshippers of Shiva; but I do not know of any injunctions from the Hindu Shastras for the religious use of such a drug. It is mere custom sanctified by age. No Shastrical text, so far as I have been able to ascertain with the aid of my Sanskrit Pandit, exists rendering the use of either of these drugs essential. The use of bhang on such occasions, however, is generally moderate. It is, as a rule, excessive among gosains and bairagis, who, I firmly believe, use the drugs from the varied requirements of their singular lives. Bhang and ganja in such persons are the essential conditions of their lives. As persons entirely living on alms, of which they get plenty at the hands of devout Hindus, they use bhang as an appetiser to consume more food than their idle bodies require; on the other hand, they use ganja to ward off the pangs of hunger, should they by any chance not get sufficient food for the day.

Bhang occasionally drunk on holidays does not and need not necessarily lead to excess, or to the formation of a habit. It is in no way injurious, in my opinion, if drunk on festive occasions in very limited quantities. In the case of those accustomed to its use on ordinary days, it has no tendency to any unpleasant consequences.

I may add here that the occasional use of bhang or ganja, particularly the former, on the holidays mentioned, is not looked upon as amounting to any vice. It is not considered a breach of good manners to drink bhang on such occasions.

36. I have reason to believe that alcoholic drinks are now being to a very large extent substituted for bhang drinking. Thirty years ago young men used to drink bhang in their convivial gatherings, such as "pleasure-parties" of young men. These "pleasure-parties" are very much like "picnic" parties, minus the society of the female sex. In former years, if any exhilaration was required at such parties, bhang drinking was the order of the day. Alcoholic drinks have now taken their place. It would be a revelation to me if at the present day such "pleasure-parties" of our young men are absolutely free from alcohol. I make this statement with extreme regret, but without the slightest fear of contradiction.

I attribute the cause of this change to the importation of cheap ardent liquors from Europe into this country, and sweet liqueurs from France, which fascinate our young men on account of their immediate intoxicant effects, notwithstanding the bad headaches they leave afterwards. We do not hear of, nor do we see, now-a-days bhang drunk at such "pleasure-parties" in any form, but I know that large quantities of liquor in various forms are weekly, if not daily, used by our young men—not only in the Thana district, but in Bombay among the better classes. This I consider to be an undeniable proof that alcohol is now being substituted for bhang.

37. The effects of ganja smoking are immediate. Bhang acts in about an hour or two, when taken after a meal. It acts in less than half an hour on an empty stomach. The effects of ganja are transient; those of bhang last for hours. Ganja has to be repeated frequently to keep up its effects. In moderate men bhang has seldom to be repeated.

39. The smoking of ganja is more injurious in the long run than drinking bhang or eating it in a preparation called majum. (Majum is made up of wheat flour, ghee, bhang and sugar in various proportions.) The following are my reasons:—

Ganja-smoking deadens the appetite and tends to produce loss of digestive powers. Hence the general emaciation of all habitual excessive ganja smokers, their pallid hue, and, strange to say, blood-shot eyes. From these appearances one can at once recognize a confirmed ganja smoker of the excessive type.

The prime effect of bhang drinking is to create an excessive desire for food. Milk is generally drunk after such craving. Bhang drinkers have generally better digestive powers, and are in consequence well known to be voracious eaters, and are by no means any the worse for their voracity.

I know of no instance in which even excessive bhang drinkers have become insane. Insanity is the result more of ganja smoking than that of bhang-drinking. Ganja smoking on the whole is more pernicious.

40. The old standard Sanskrit writers, who are generally studied by native doctors, recommend *Cannabis indica*, or the hemp plant and its products, for the following diseases:—

Irritability of the bladder, piles, diarrhœa, asthma, bronchitis, loss of sleep, loss of digestive power, and quartan fevers. Indian hemp is also noted as productive of biliousness, emaciation, narcotism, talkativeness.

I do not know from experience of any of the drugs being used in the treatment of cattle disease, but native writers say that bhang mixed with Indian sweet fennel and cardamom is useful in checking hæmaturia, and possibly it is, judging by its effects on the human body.

41. Moderate use of ganja gives relief in chest complaints, such as asthma, by acting as an antispasmodic, and reduces the excessive discharge of phlegm (mucous and muco-purulent expectoration). It gives staying power and also wards off the pangs of hunger when food is not available, as sometimes happens in the lives of gosains and bairagis.

(*a*) Similarly bhang drinking acts as a food accessory and digestive by relieving dyspepsia and creating an appetite for food. It also relieves the colic pains due to constipation.

(*b*) It gives staying power by exhilarating the system to a certain extent.

(*c*) I know of no practical use of this drug in fevers, either as a preventive or curative agent; but it is recommended by native writers for quartan fevers, as already stated in answer to question No. 40.

44. The immediate effect of the moderate use of ganja is exhilarating to a man who has followed his daily avocations and is looking forward to his customary smoke; it is also refreshing. It renders a man talkative, but does not intoxicate.

It does intoxicate men not accustomed to it. It staves off hunger. The effect of ganja is transient. It lasts for an hour or two at the utmost. Want of a ganja smoke to a habitual but moderate smoker produces uneasiness. The man misses his little excitement. There is always a longing for it among confirmed smokers. The same is the case with habitual moderate bhang drinkers. Bhang drinking is decidedly cooling at first; by-and-bye the drinker feels exhilarated; within half an hour he becomes talkative, after which he feels sleepy, especially if he is a novice. The sleep is full of dreams. On waking there is a desire for food. The desire for food is in some instances immediate; and a man may eat voraciously under its influence. Some prefer taking bhang on an empty stomach; others take it a couple of hours after food. In the former case the effect is more rapid for obvious reasons. After the drinker wakes from his sleep, if he is an habitual, he goes to work as usual, but if he is a mere beginner he feels heavy in the head and still continues to be talkative. He often gets double-vision. The effects pass off in about five or six hours. With habitual drinkers beyond talkativeness there is no marked effect. They appear happy. They have not to lie down, or go to sleep after their usual drink.

The habitual use of these drugs, even in a moderate degree, is looked upon as vice. It is, however, not considered wrong by the devotees of *Shiva* to indulge in ganja or bhang on days held sacred to that divinity.

45. There are two classes of moderate habitual smokers of ganja and drinkers of bhang. There are some, for instance, who have a perfectly good physique and a healthy body whose mind is perfectly clear and active, and who lead a moral life, and indulge in their respective practices before their day's work is begun or after they have finished it. There are others again who even after moderate use of bhang or ganja live a life of idleness and are unfit for any kind of work requiring mental or physical exertion. They may be otherwise healthy and perhaps mentally happy; they may also be moral; but they are persons who show that they are indulging in a practice which is doing them no good.

These drugs lead to a little emaciation, especially smoking, or when after bhang the required supply of food is not available. It is noted by ancient Hindu writers as a reducer of fat. Perhaps this emaciation is due to loss of appetite among ganja-smokers, and not to any direct preventive influence on fat-formation in the body.

As noted above, ganja-smoking impairs the power of digestion, and though it may actually cause loss of appetite, it staves off hunger. Hence it is that the bairagis and gosains look upon it as a stand-by when the collected alms of the day do not give them their full meal.

I have not seen, nor have I heard from any reliable source of dysentery, asthma, or bronchitis being traced to the use of hemp in moderation. European physicians use it for the *cure* of dysentery. To my knowledge, moderate use does not impair moral sense. It *does* induce laziness in some cases, especially where a person has not to earn his livelihood. But as a general rule with habituals, bhang sharpens the intellect, so does ganja.

So far as I am inclined to believe, there is nothing in bhang or ganja to lead to habits of immorality or debauchery.

I am not satisfied that either of these drugs acts as a direct aphrodisiac. Of course, when there is a general excitement of the whole system under the influence of smoke or drink, the sexual passions may be roused as often as not. The drug acts more on the sensory part of the brain than on the motorial. It acts as a distinct sedative on the cerebral centres and benumbs the sensory nerves. The theory of hemp acting as an aphrodisiac is not borne out by clinical investigation or experience.

I am not aware that moderate use causes insanity. On the contrary, European physicians of repute use the drug medicinally in cases of insanity.

Table showing typical cases which came under my observation between 1881—1892, in the Thana Civil Hospital, as the result *of* ganja-smoking.

No.	Name.	Sex.	Age.	Caste.	Occupation.	Disease.	Remarks.
1	N. R. K.	M.	25	Brahman, Deccan.	Writer .	Acute mania.	Smoked ganja excessively for 4 or 5 years; used to lie insensible after smoking.
2	S. R.	M.	30	Maratha Gowli.	Policeman	...	24th May 1886, 1st attack.
3	K. M. J.	M.	35	Hindu Jungum.	Mendicant	...	
4	W. R. P.	M.	22	Deccan Brahman.	Writer .	...	
5	K. V. S.	M.	24	Maratha .	Labourer .	...	
6	S. R.	M.	34	Maratha Gowli.	Policeman, now without employ.	...	10th October 1890, 2nd attack.
7	N. C. D.	M.	48	Maratha .	Labourer .	...	
8	G. C.	M.	38	Pardeshi Brahman, Upper India.	Labourer .	...	Tansa Valley Water Works.
9	Y. R.	M.	30	Maratha .	Labourer .	Melancholia.	
10	S. S. Pardeshi	M.	36	Pardeshi, Upper India.	Labourer .	Melancholia.	Tansa Valley Water Works.
11	K. V. S.	M.	25	Maratha .	Labourer .	Mania .	
12	S. R.	M.	36	Maratha .	Unemployed.	Mania .	

The symptoms of mania are those ordinarily described in books under that head.

46. The habitual *excessive* use of ganja does impair the constitution. Young men who have taken to it have either died of melancholia and a general break-up of the system or some other complaint such as asthma or chronic bronchitis. I do not think excessive ganja smoking causes dysentery. The tendency of excessive ganja smoking is to reduce the excretions and secretions of the body by paralysing the sensory nerves, hence the pinched face, dry sluggish eye, often bloodshot, and shrivelled frame. From the few cases I know, I do not think excessive ganja-smokers are given to sexual excesses.

Gosains and bairagis who are given to excessive ganja smoking are men whose morals are of a low order, as would appear from the many cases of bad syphilis for which I had to treat them in the hospital.

Excessive ganja smoking deadens the intellect and causes insanity. It acts more as a predisposing than as an exciting cause. Men generally suffer from melancholia in the commencement. This is followed by mania coupled with violence. Violence in some cases is more marked in the

commencement. In such cases melancholia is absent in the initial stage.

In cases which have come under my observation of any connection between insanity and ganja, it appears that ganja was resorted to originally for the relief of other affections than mental anxiety or brain disease, such as asthma, bronchitis, and painful bowel-complaints. In all these cases hemp drugs act as sedatives; hence the habit is formed, which might eventually lead to insanity.

There is no evidence to indicate that insanity tends to indulgence in the use of hemp drugs by a person who is deficient in self-control through weakned intellect.

47. I have no reason to suppose that the moderate use of hemp drugs is either due to or engenders a hereditary habit. Nor do I know of any instance where it has affected the children of the moderate consumer, in any way, either as regards health or morals.

48. Excessive ganja smokers are generally not men with families. They generally belong to the class of gosains and bairagis, who are not supposed to marry. Where such ascetics have children by illicit intercourse, they are sickly and generally die of infantile diseases due to proverty of blood, insufficient nourishment, or congenital syphilis.

49. It is not used as an aphrodisiac so far as I know. The use of hemp does not tend to produce impotence so far as I know.

50. Excessive ganja smokers mostly show that they do not care for sexual intercourse, but their sexual power is not totally lost, as my answer to question 48 will show.

Oral evidence.

Question 1.—I have over sixteen years' service —five military service, and eleven in civil employ. I have had no special lunacy experience, but I specially studied lunacy in my youth and took honours in this subject. So the subject has had special interest for me in my practice.

Question 35.—I think that alcohol would be the first drug to be generally substituted for hemp drugs for the sake of accustomed stimulation. I judge from the experience of fishermen and such people in providing for their need in this way. This is more expensive than hemp drugs at present. Then I think they would take to dhatura, which is found growing all around. I know that dhatura is not used now; but it might be used if hemp drugs were stopped. Opium also might be used. I do not think that nux vomica would be used. It is not common in Thana, and it is a spinal stimulant and would not be popular. So also the twitchings and tetanic spasms caused by aconite would prevent its being used for pleasure. It is true that dhatura is viewed with great apprehension by the people, but it produces in moderation similar effects to those found in the early stages of ganja-smoking, and might be used. Some natives know that we give dhatura in cigarettes for asthma; and those who take ganja for relief in asthma would take to dhatura. But the people generally would not take to dhatura so long as they could get alcohol or opium.

Question 46.—The table of typical cases found in answer No. 45 should be found in answer No. 46; for the cases are due to the excessive use. Case No. 11 is a relapse of No. 5, and No. 12 of No. 6. And these relapses are clear and positive proof that the cases were due to ganja. The total number of cases is ten; but these two relapses are important as proving the cause to have been ganja, as it was the recurrence of the habit that led to the recurrence of the insanity.

All these cases were under my observation as Civil Surgeon, with a view to the men being sent to the asylum. All the men went to the asylum. I have hospital notes on the cases—brief but to the point: these are fuller than the statements I sent to the asylum.

The history of ganja smoking is given from the statements of relations or friends, if they come with the patient. If not, we enter nothing, because police statements are hearsay. I enter the police statements only in the certificate as "Facts observed by others." But in the Form specially showing cause, I put down what the relations tell me. If the police tell me the cause, I send myself for the relations who have given the police the information and examine them myself. I then make my entry as to cause. If I cannot get the relatives, I show the cause as "unknown." If the police knew personally the habits of the man, then I would accept their statements, but not otherwise. If the police give me information as to cause which is the result of inquiry, I reject that, for in such scientific inquiries I consider it necessary to have information at first hand.

I have a Hospital Assistant in charge of the Thana Hospital; but I take the evidence of relatives entirely myself; and it is always in my handwriting.

I have not notes on these cases with me now. As a rule; these cases are at least a month under my observation at the hospital.

I think I have sent over fifty cases to the asylums during the years 1881-92.

I see case No. 9 on my list. I ascertained the cause of insanity in that case. It was about four years ago when the Tansa Valley works were going on. The cause was ganja smoking. The name was Yesu Ragho. It is possible he was sent to Kolaba Asylum: I think so. I forget whether I had his relations up. Speaking generally, if I had a history of the ganja habit, I should not be inclined to make that, the cause if it were moderate. Moderate consumption I would regard as a predisposing cause rather than exciting. I would not put down "cause unknown" in that case. This is evidently the case shown as No. 2 on the 1892 *hemp drug* admissions in the Kolaba Asylum. The paraplegia referred to as having supervened there does not militate against the man's being a ganja smoker, or the cause of his melancholia being due to excessive ganja smoking. Partial paraplegia may be due to disease of the spinal chord which may or may not be due to ganja smoking. The ultimate result of excessive ganja smoking leads in my opinion to the total annihilation of the sensory nerves, and would so cause paraplegia. I remember two instances of hard ganja smokers who constantly suffered from peripheral neuritis, in which there was marked anæsthesia of the right upper and lower extremity. They ultimately died of hemiplegia. We may assume also that brain lesions of the cerebral centres may occur. I have no personal knowledge from *post mortem* examinations of lesions in the brain or in the spinal chord. I cannot refer to any works containing a record of such observations, not at the present moment. My statements regarding these lesions are based on personal observations of the symptoms of the two cases to which

I have referred, but they were not verified by *post-mortem* examination. I regard that experience as putting the matter practically beyond doubt that excessive ganja consumption and such lesion are connected as cause and effect. In these cases I have the history of the case to guide me to the conclusion that the ganja caused the lesion, as well as the progress of the disease, as observed by me. During the time the man in each case was under my observation no *Cannabis indica* was given by way of treatment. I got the cases under my treatment with the history that the men were excessive ganja smokers. From the nature of their nervous symptom I was of opinion that they were due to excessive ganja smoking; and during the time these cases were under my treatment they were never given *Cannabis indica* in any shape. Therefore I conclude that there were permanent lesions due to the use of the drug. The nervous symptoms to which I have referred were similar to sypmtoms which might have been caused by any of half a dozen other causes, *e. g.*, (chiefly) syphilis and local tumours. I was able to exclude these causes from the former history of the cases I have mentioned.

I know of no experiment on the lower animals leading to the conclusion that lesions are caused by hemp drugs.

I am not prepared to go into these ten cases at present; for I have not brought my notes on them with me. These notes are not so complete as to enable me to state in each case whether all possible causes have been excluded. The notes are not complete in regard to the questions put by this Commission: and besides I was not so particular as to cause as I was in regard to the disease. I do not think I could give more information than could be obtained in the asylums.

If a man were brought to me insane, who had been much under the influence of the sun and of malaria, and who had suffered from fever a good deal, and I were told of him that he smoked ganja, I should say that the exciting cause of the insanity was the fever if that immediately preceded the attack, but that the predisposing cause was the use of ganja. In some cases of excess insanity can be traced direct to ganja; in other (moderate) cases the ganja habit may make the operation of sun or malaria effective in producing insanity. That is, the man might have escaped otherwise. Given the habit of ganja smoking with the fact of insanity, however, I would not attribute the insanity to the ganja either as the predisposing or exciting cause in all cases. In some cases the insanity might be due to some cause unconnected with ganja. In the case above stated of the man suffering from sun and malaria and fever and smoking ganja, I should hold the ganja to be connected as cause with the insanity as above stated, unless I could find some cause that excluded it as a co-operating cause. This is a typical case from my part of the country owing to the malarious character of the place and the Tansa Water-works. And this explains my statement in answer 46 that "ganja smoking acts more as a predisposing than as an exciting cause." I would not call it a predisposing cause in cases of heredity and syphilis, but these are rarer in my experience.

---

74. *Evidence of* Surgeon-Colonel D. E. Hughes, *Principal Medical Officer, Bombay, Deesa and Aden Districts, Bombay.*

1. Fourteen years' service in a Native Regiment; Superintendent of Lunatic Asylum, Poona; private practice among better class natives.

27. Among the patients admitted into the Poona Lunatic Asylum whose insanity was ascribed to hemp drugs, by far the greater number were Hindus who smoked ganja.

31. All habits are difficult to break off.

35. (*a*) I fear not.

(*b*) and (*d*) Yes.

(*e*) I cannot tell.

(*f*) Most probably.

43. Apparently so.

45. To the best of my recollection many of the comparatively young sepoys (sixteen years' service), who appeared before Invaliding Boards were said to be addicted to ganja and charas smoking to which their early break-down was attributed. I think the smoking of charas causes bronchitis and asthma, as I well remember cases of these diseases in the 14th Bombay Infantry which were ascribed by the Hospital Assistant and the men's comrades to charas smoking, and which recovered in hospital quicker than cases due to ordinary causes.

Smoking ganja induces insanity, generally mania, and, as far as my recollection goes, temporary in character. The symptoms may be reinduced by the use of the drug after release from restraint as shown by readmissions into lunatic asylums.

Patients when asked whether they were ganja smokers readily admitted the habit.

47 and 48. Unknown.

49. I think so. Well-to-do and comparatively young patients, who have consulted me evidently with a view to obtaining a prescription for an aphrodisiac tonic, have in the course of examination volunteered the statement that they smoked ganja, and appeared to blame that habit for their sexual weakness.

51. Those I have known as ganja smokers have generally been dissipated and disreputable-looking men.

53. Apparently.

54. Cases of the drug being used by criminals for this purpose are quoted in books of Indian Medical Jurisprudence.

Oral evidence.

Question 1.—I have had twenty-seven years' service. For fourteen years I was attached to a regiment, and was from that time in continuous civil employ till quite recently. I was in charge of the Lunatic Asylum, Poona, for broken periods, amounting in all to nearly three years. I have had no other exceptional opportunity of gaining insanity experience. I am now Principal Medical Officer in Bombay, Deesa and Aden districts.

Question 27.—Since writing this answer I have had it confirmed by figures furnished by the present Superintendent of the Asylum. I arrived at the conclusion stated by a general recollection of

the facts. I have nothing to add on the subject which cannot be ascertained from the registers of the asylum.

Question 45.—I remember that when the yearly inspection for pension took place each year in September, a number of men, of service only just long enough to earn pension, came up suffering from bronchitis and asthma. They were generally weak and broken in appearance, but this may have been caused by voluntary starvation. They would attend the hospital and be cured, and be in a short time readmitted for the same complaint. They were, as I have said, of the length of service which would entitle them to invalid pension. It was explained to me that they owed their illness to charas smoking. I did not certify in any case that the illness of a man who was granted pension was due to charas. I am bound to state that an applicant's disease was not aggravated by vice or intemperance, but I took no notice of the use of the drug in any of these cases, because I did not attach sufficient importance to the statements made to me, and was not sure that they were correct. I speak only of physical break-down in this answer. In saying that smoking ganja induces insanity I refer to the excessive use. My statement is based on lunatic asylum experience principally, but also upon my experience as Civil Surgeon when certifying cases for the asylum. I do not remember any particular case, but remember them as a class. As Civil Surgeon, I thought it was my duty to ascertain the causes of insanity. For this purpose I enquired of relations when they came, and, if they were not present, of the police. I would ask relations what the cause was. If they said ganja, I should have considered it quite enough. If the police made the same statement, I should accept it. As far as I know, these statements form the basis of the asylum statistics. But when a man gets over his insanity in the asylum, he will sometimes confess to the use of the drug. If the friends told me, or the man admitted, that he used ganja, I would make no further enquiry, but assume that the use was excessive. If the ganja habit were admitted, I should still enquire as to other causes —those detailed in the form. I have had cases in which the use of alcohol and opium has been admitted as well as that of ganja. When ganja and alcohol were both admitted, the case would be entered as one of toxic insanity. But as a rule I think the cause would be put down to ganja for preference. In a case where hereditary insanity was established and the use of ganja admitted, the case would probably be regarded as one in which heredity was the predisposing and ganja the exciting cause, and ganja would be entered as the cause in the returns. I do not regard the returns of the lunatic asylums, framed in the manner I have described, as forming a satisfactory basis for a scientific opinion regarding the connection between insanity and the hemp drugs. But the procedure is the best that is practicable, and the information is all that we can get. I have no doubt in my own mind, in spite of the partial discrediting of the statistics, that ganja does lead to a form of mania. A great proportion of the cases assigned to hemp drugs in lunatic asylum reports are in my belief due to that cause, though possibly the drug is unfairly charged with a certain portion of them. I say only "possibly" notwithstanding what I have said above, because if ganja is the exciting cause of insanity, I think it is properly entered as "the cause" whether there was a predisposing cause or not. There is no advantage in entering a "cause" which is doubtful, because it will be of no assistance in the treatment of the case. But for the purpose of the returns I should never enter a case as "cause unknown" when the ganja habit had been attributed to the man. Notwithstanding this, I cannot go further than to say that the drug is "possibly" credited unfairly with causing insanity.

---

75. *Evidence of* Surgeon-Captain W. H. Burke, *Assistant Civil Surgeon, Poona.*

Oral evidence.

Question 1.—I am eleven years in service. I have been Assistant Civil Surgeon for nearly four years, and Surgeon to the Sassoon Hospital during that period. I have been in temporary charge of the Poona Lunatic Asylum for short periods, and I was fifteen months in charge of the Ratnagiri Asylum. I have had no special asylum experience in England.

Question 45.—The lunatics found wandering about in Poona are sent to me for observation. Sometimes a vernacular correspondence is sent with the lunatic. As a rule, only a letter is sent stating that the lunatic is of unsound mind, and requesting me to examine him and give the necessary certificate for admission to the asylum if he is found to be insane. As a rule, it is very difficult to find out anything about the lunatic's past habits and history. When the lunatic's relations come up we can discover something. The vernacular papers constitute the police report. They sometimes contain a declaration by the relatives. I get them read by students at the hospital at the time that I inspect the lunatic. The papers generally contain information regarding the conduct which proves the existence of lunacy. They rarely give any information about the cause of insanity. It is very uncommon for me to see the man's friends. It happens when the relatives wish to take charge of the lunatic, and such cases do not go into the asylum. Sometimes the lunatic himself gives some account of his past history. I generally try to see the lunatic's relations myself if they come. Sometimes the student in charge of the case takes their statements. The student and I also conduct our examination in accordance with Form C. In Ratnagiri, Form C was always filled up by the Magistrate. Here it is filled up by me. In Ratnagiri the Magistrate sometimes left some details of the statement blank for me to fill in as Superintendent of the Asylum. The information I give in Form C is generally very incomplete, as I have only the lunatic to get it from. The important part of my duty in connection with the lunatic is the preparation of Form A, the medical certificate which contains no entry as to cause. Against head 12 of Form C, in the case of Gujar Shah, appears the following entry:—"The above mentioned ganja smoking and religious and isolated habits." So far as I remember the entry regarding ganja smoking was based on a vernacular paper. The man was a fakir, aged 75, and appeared to be suffering from religious mania, due, in part at least, to his habits and ways of thought as a

fakir. The fact of his early cure, as shown by his exhibiting no signs of insanity in the asylum, would point to ganja smoking as the exciting cause, the symptoms having only lasted about six days. If there had been no history of ganja smoking in this case, the symptoms would have been consistent with the form of mania called *transient mania*. I have seen that form of mania. Without the ganja history, I could not have arrived at any diagnosis of the cause. Against head 12 in Form C of the case of Rangnath Trimbak is entered "unknown," and against head 6 of the same form regarding character is entered "drinks bhang." I cannot recall the facts of the case clearly, but think the entries were based on examination of his brother, who was present. It is evident from the entry against head 12 that I did not attribute the insanity in this case to the hemp drugs. If I ascertained that the man used ganja I would attribute the insanity to ganja in default of other causes. It has not been my practice to make enquiry whether the patient was given to the excessive, as distinguished from the moderate, use. In the case of Rangnath, it is probable that the brother did not attribute the insanity to the drug. In the case of Trimbak Vinayak, all the entries in Form C are based on the father's statement. I don't remember in what condition the boy was, and the statement "abstinence from food" was probably based on the father's information. In the case of Laxman Nandram, it is stated opposite "character" (head 6 of Form C) that "he drinks country liquor and ganja." The brother was present, and this statement was probably made by him. Against head 12, I entered the cause as "unknown." The insanity having lasted two and a half years (*vide* head 9) may have been the cause of my doubt as to whether liquor and ganja should be regarded as the cause. I have always looked upon Form C as a statement of which the entries might be modified by enquiry at the asylum, and I have thought it better to record the word "unknown," unless I was tolerably certain regarding the cause.

If I had regarded the last case as one of *toxic insanity*, I should not have put it down to country liquor in preference to ganja, though the lunatic used both. If it is true, as stated in the asylum, that the man smoked ganja occasionally but not regularly, and that he drank liquor frequently for years, I should have been inclined to regard liquor as the more probable cause if the insanity could be considered to be *toxic*. I should class hemp drug insanity generally as *acute mania*. *Acute mania* may be due to many causes. I can't say that I have noticed any *typical symptoms* in *acute mania* due to hemp drugs. The diagnosis would rest on the appearance of the lunatic and on the temporary nature of the insanity. Other symptoms would be redness of the eyes, violent excitement, and mental activity. I have not noticed anything peculiar about the pupils. These symptoms would be present in *transient mania*. I would not go so far as to say that the diagnosis of hemp drug insanity depends entirely on history. There are appearances which one comes to regard as connected with such cases, but on which I should not venture to make a diagnosis without history of the hemp drug habit. All the symptoms might be found in the form of insanity known as *transient mania*; but I should not diagnose *transient mania* from them, because my experience has led me to regard it as much more rare than hemp drug insanity. *Transient mania* might be brought on by mental shock, such as loss of money or exposure. I don't think dhatura poisoning, whose symptoms are well marked, could be mistaken for it. Up-country men and fakirs seem to furnish the majority of hemp-drug insanes. These classes of persons are exposed to vicissitudes of temperature and insufficient food. These would be causes of *transient mania*. The fakir class would be specially liable to an attack of *transient mania* from exposure to weather, want of food, and religious excitement. The solitary habit would be more likely to induce *melancholia*.

---

76. *Evidence of* Rao Saheb Bhicajee Amroot Chobhe, *Brahmin, Assistant Surgeon, Poona City.*

Ganja is used for smoking; generally a little tobacco is mixed with it before use. It is also used in the preparation of majum, yakuti, gulcand, and shrikhand, which are used for eating.

Bhang is powdered and mixed with syrup and used under the name of ghota for drinking.

Charas is used for smoking only.

They are generally used by the idle and vicious of all classes; but bhang and the said preparations of ganja are sometimes used even by persons of respectable position.

Charas is very rarely used in this part of India, and I cannot assign any reason for this.

Ganja and charas are used for smoking, bhang for drinking, and the preparations of ganja for eating.

Smoking of ganja is prevalent amongst the lower classes, and bhang and the preparations of ganja are used, though rarely, by the other classes for drinking and eating respectively.

Bhang is, I believe, never used for smoking.

The use of these narcotics is, I believe, on an increase in Poona, and this may perhaps be due to the cheapness of the drugs. They are cheaper than any of the other narcotics.

Low company, idle habits, absence of mental work and poverty generally lead people to resort to these narcotics.

A habitual moderate consumer requires per diem half an anna for ganja and one anna for bhang; while a habitual excessive consumer requires per diem two annas for ganja and four annas for bhang.

Dhatura is sometimes mixed with these narcotics in order to increase their intoxicating effects.

The consumption of these drugs is chiefly confined to the male sex. The habit is contracted generally after twenty years of age; ganja is not at all used by children and women. Some prostitutes, however, are known to make use of bhang and the preparations of ganja.

The habit is easily formed, and it is very difficult to break it off.

It is not quite feasible to prohibit the use of the drug, since its prohibition is likely to lead the persons habituated to its use to take to other more expensive intoxicants.

Cannabis causes mirthful delirium, causeless fits of laughter, dilatation of the pupils and hallucinations, whereas alcohol leads to contraction of the pupils, furious excitement and more marked unsteadiness of gait.

By smoking ganja and charas, mental, digestive, and consequently the physical, powers of the body are impaired. In extreme cases it leads to melancholy, impotence and dropsy.

Smoking is more injurious than eating.

European doctors prescribe extract and tincture of ganja in cases of diarrhœa, dysentery, asthma, gleet, tetanus, etc. Native Vaidyas prescribe ganja and its preparations in some of the above maladies. Native physicians are known to use ganja in cattle diseases.

Habitual moderate use of these drugs is, I think, not beneficial to the digestive system, but it does give some staying-power under severe exertion; it does not serve as a febrifuge or preventive of malaria.

Habitual use of this drug, however moderate, does in no way do good to the human system. Moderate use of ghota, a preparation of bhang, slightly aids digestion, but taken in excess it produces injurious effects.

Moderate consumers are inoffensive to their neighbours.

The immediate effect of moderate use is invigorating and refreshing. It excites hunger.

Habitual use of ganja and charas impairs the constitution and injures digestion, but I think it does not cause dysentery, bronchitis or asthma. It impairs the moral sense, and brings on laziness. Ganja smoking weakens mental powers and causes insanity in many cases, which is rarely permanent.

The habit is not inherited.

It is used as an aphrodisiac. It is used by some prostitutes. It is said to produce impotence.

Moderate use of the drug does not lead a person to commit crime.

Excessive use of the drug leads to temporary homicidal frenzy.

---

77. *Evidence of* Khan Bahadur Dossabhoy Pestonjee, *Parsi, Assistant Surgeon, Parakh Dispensary, Surat, and Honorary Assistant Surgeon to His Excellency the Viceroy.*

1. I am medical officer in charge of the Parakh Dispensary at Surat, and besides I have had extensive private practice amongst the inhabitants and operatives of mills in this city.

2. In India, so in the district of Surat, there are three narcotic articles that are naturally obtained from hemp. The three articles are (*i*) siddhi bhang, (*ii*) ganja, and (*iii*) charas. There are three different names for siddhi, *viz.*, bhang, sabzi or myapani, the word patti being quite unknown in Guzerat.

Charas is a greenish-brown, moist, resinous mass and consists of resin mixed sometimes with fragments of the leaves. Bhang consists of dried leaves in the form of coarse powder with peculiar odour characteristic of its narcotic principles. Ganja is the name given to the flowering tops of the female plant. There are three varieties, but only two are known in Guzerat (*i*) the flat ganja, and (*ii*) the broken ganja.

Yes, these definitions may be accepted for the province of Guzerat. Each of these products is locally known as (*i*) bhang, (*ii*) charas, and (*iii*) ganja.

19. Ganja and charas are for the most part used for smoking, but some people use ganja leaves for eating with the object of producing its effects without taking the trouble of cleaning it and smoking it in a pipe.

23. To my knowledge bhang is never used for smoking to produce intoxication.

28. The average allowance and cost of each of these drugs depend upon the habit of the consumer of taking it once or twice a day, and the locality in which the drugs are grown and easily obtainable.

(*a*) The dose is one tola or two drachms, and the cost one pice.

(*b*) The dose is three tolas or 6 drachms, and the cost from one to two annas.

29. With some inveterate smokers of ganja it is the practice sometimes to mix dhatura and opium for the purpose of smoking, the object being to intensify the effects of intoxication at comparatively less cost.

Yes, there is a preparation which is ordinarily called bhang massala, and which consists of the following ingredients:—Pepper, almonds, poppy seeds, sugar, and pistachio seeds. Another preparation called majum consists of sugar, butter, flour, milk and bhang.

30. The consumption of each of these drugs is generally practised in solitude except in the case of charas, which is invariably smoked in shops and in the company of habitual comrades. The consumption of these articles is mainly confined to the male sex, except in the case of bhang, which is used in the form of drink by some low caste females, and generally by prostitutes.

31. The habit is easily formed and very difficult to break off. A confirmed consumer of ganja will smoke it with the sale of all his belongings, and it is particularly with this drug that there is a peculiar tendency for the moderate habit to develop into the excessive.

32. It is customary at weddings, amongst a class of people called the Ghauchees and fishermen, to partake of a little quantity of bhang before commencing their meals for the purpose of producing excitement and exhilaration, and the use in such cases is generally temperate, and there is no reason to believe that such temporary use of the drug leads to the formation of any confirmed habit or desire. Bhang is offered at the shrine of "Mahadeb," the votaries not partaking it.

36. I am of opinion that alcohol has gradually superseded the use of any of these drugs, on account of the greater facility in obtaining it, and the surreptitious and secret manner in which it could be obtained for ready use.

37. I have had no experience of the effects of charas smoking, which is wholly practised in shops at Bombay. The effects produced by the drinking of bhang are of a mild exhilarant character, and free from any tendency to commit violence or self-destruction. Charas is not used in this district.

Drinking bhang is considered a safer and more healthy practice than smoking ganja.

39. It is generally admitted, and I believe with much truth, that the habitual excessive smoking of hemp induces a tendency towards producing insanity, and this opinion is confirmed by some cases which have come under my professional observations.

40. In some cases of asthma and diseases of the lungs smoking of hemp is recommended as a great palliative of the attack. Amongst cattle, and especially amongst buffaloes, it is given with the object of causing an increased flow of milk. Bhang leaves are used for fumigation in hœmorrhoids and fistula of anus.

41. A moderate use of bhang is beneficial in its effects—

(*a*) as giving a stimulus to appetite;

(*b*) as a restorative under severe strain of the system or in alleviating the effects of fatigue.

(*c*) It is said to be a febrifuge in malarious districts.

It tends to keep up the vital powers, especially amongst those accustomed to hard labour, as woodcutters and carriers of heavy loads.

42. I consider the moderate use of bhang beneficial as discussed in the above question. Jewellers and goldsmiths generally take a small quantity of bhang before commencing their usual daily avocations.

44. The immediate effect is that of slight excitement with incoherent and a rapid succession of thoughts. In small doses it is refreshing. In large doses it produces intoxication. The effects last for four or five hours. The after-effects are languor and lassitude.

45. No, it does not.

46. Habitual excessive use of the drug produces derangement of the mental powers. It reduces the vital powers of the system, and renders the consumer liable to attacks of dysentery and bronchitis. It has the effect of impairing the moral sense, and produces habits of immorality or debauchery. In cases where insanity is produced by the use of hemp drugs, the type is generally that of imbeclitiy or idiotcy, and is almost incurable.

49. It is said that a moderate use of bhang is made as an aphrodisiac by prostitutes. Excessive and constant use of hemp has a tendency to produce impotence.

50. Excessive use of these articles, especially of ganja, is prejudicial to health. It destroys appetite instead of stimulating it. It undermines the vital powers of the system, and lastly it leads to insanity.

56. The admixture of dhatura to bhang is in use only amongst those who have contracted excessive and inveterate habits, with the object of intensifying the effects of the drug at a minimum of cost.

Oral evidence.

Question 1.—I was educated in the Grant Medical College, and am G. G. M. C. (Graduate, Grant Medical College), having taken my degree before the University came into existence. I have thirty-three years' service all in this presidency. I have no special experience about insanity: no asylum experience. Being in charge of the Mahikantha Agency for one year gave me some experience of ganja; there were 1,000 people employed on the horses, of whom about one-third used hemp drugs. This was in 1860. I have had occasional experience since.

Question 3.—By the last clause I mean that it is now more easy to obtain liquor surreptitiously than it used to be. I am only speaking from experience in the city of Surat.

Question 46.—My statements here as to insanity are based on my Mahikantha experiences among the troopers. I have no more recent experience. I have had one case more recent than these (which occurred in 1860). I have had a case in Surat, six years ago. I have no case since then; that is my last case. Nor do I remember any case between 1860 and the Surat case. The man was a Hindu about 24 or 25. I believe he was single, but do not know. He was brought to me for treatment in 1887 suffering from dementia. He was brought by his relations as a private patient. His relations informed me that at the age of 15 or 16 he contracted the habit of smoking ganja. I was not told where he learned the habit: these people are not accurate in their statements. Since he had contracted the habit he had left off going to school and was constantly in the habit of wandering in the streets. I was told that his habits gradually became filthy, not particular about cleanliness, and that his memory so far disappeared that he could not recognize even his friends or relations. He was not violent or a terror to his neighbours. I did not send him to the hospital, and recommended that he should be washed, and declared that the case was almost incurable. He was brought before me on two or three occasions at intervals of two or three months. He was only brought to me as an out-door patient, *i. e.*, for a few minutes or half an hour at a time. He was not an official patient; so I took no notes of the case.

The only cause the relations could assign for his insanity was smoking ganja. I enquired as to whether he was a great student or had any strain on his brain; but they could not give me any positive reply. I also asked about immorality. They could not give me any answer. I believe they were either ashamed to reveal the real state of his mind or perhaps they did not know.

They said there was no hereditary tendency: that he had no mad relative. I do not remember whether I asked about liquor, as he was a Hindu.

They said he had begun to fail at about the age of 15 or 16, and had grown gradually worse. I formed the opinion at the time that this insanity was due to ganja. I cannot say that I am convinced that it was not due to venereal excess.

The relations told me he was a lively boy up to fifteen. I had not seen him before he was brought to me. The only peculiar symptoms of hemp drug insanity are a peculiar despondency of mind and dread of relations and friends. I believe there is also a loss of venereal power. I regard these as typical symptoms, using the word "typical" in a medical sense. From these symptoms I would be led to form an opinion that the insanity was due to hemp drugs. I would be inclined to diagnose it even without any history. Any or all of these symptoms might be due to other causes. I would attach some importance to the history also. I believe I cannot say that any case of insanity is due to hemp drugs from the symptoms without the history. History is not the sole means of arriving at a diagnosis: symptoms must also be taken into consideration. I base my

statements about typical symptoms only on this case which is my only ganja case. The Mahikantha cases of 1860 were ganja cases, but none of them was a confirmed form of madness. I have never read of, or come across, any case of ganja insanity with these typical symptoms. I do not remember reading of such a case.

From this case I also judge that confirmed insanity from ganja is incurable.

Question 49.—People have told me that they themselves have used bhang as an aphrodisiac. There are other aphrodisiacs easily available to the people, but bhang is the only cheap one.

78. *Evidence of* Assistant Surgeon Anna Moreshwar Kunte, *J. J. Hospital, Bombay.*

1. In my professional capacity I have had a few opportunities.

2. Yes. The dried leaves of the hemp plant are sold in the market under the following names:—bhang, sabji, ghota, and siddhi.

19. Ganja and charas are used only for smoking.

23. Bhanga is not used for smoking in Bombay.

28. (*a*) Three tolas, which cost about ¼th of an anna.

(*b*) Drink the sherbet prepared from bhang to the extent of about two or three seers, which cost about ½ anna. Bavas and fakirs, habitual excessive consumers, consume about ¼ seer of ganja a day.

29. Ordinarily bhanga is mixed with a little of black pepper and sugar. Excessive consumers add sometimes a little of dhatura (the seeds generally) to increase the power of the drug. Ganja smokers mix with it half the quantity of tobacco.

Bhanga massala consists of (1) black pepper, (2) poppy seeds, (3) rose buds, (4) cardamoms, and (5) almonds in varying proportions.

30. Bhanga (preparation) is usually drunk in quantities, either in solitude or in company of others. Ganja smoking is better enjoyed in company than in solitude. Bhang drinking is confined both to the males as well as females. Males only smoke. Children under 13 or 14 years of age are not found smoking ganja.

31. The habit of consuming any of these drugs is generally formed by association; but once the habit is formed it is difficult to get rid of it.

32. Worshippers of god Mahadeva prepare the sherbet of bhang in large quantities on Mondays. In the month of Shravan, a large quantity is freely distributed. The Marwari Brahmans particularly believe in the efficacy of the drug in this month. The use of the drug is generally in moderate quantities. This does not lead to the formation of the habit. They don't seem to be injurious.

36. Alcohol of late is taking the place of these drugs. The causes of this change seem to be—

(*a*) The trouble one has to take to preparing ganja or bhanga.

(*b*) Alcohol can be easily obtained.

(*c*) Alcohol works on the system sooner, and is becoming more fashionable.

39. Smoking is more injurious than drinking bhanga.

40. Vaidyas often use bhanga as a fumigation for piles.

41. (*a*) Moderate ganja smoking is said to increase the appetite. I have personally not known much about it.

(*b*) A person is supposed to stand exposure and fatigue.

(*c*), (*d*) It is not a febrifuge.

42. The use of these drugs is not harmless.

44 and 45. I had no opportunities of observing this.

47. No. It is not a hereditary habit.

79. *Evidence of* Assistant Surgeon M. F. Pereira, *in medical charge, Alibag.*

Question 46.—I have found insanity to result often from the excessive and habitual use of ganja or bhang. During the last twenty-one years, 1872—1892, 75 lunatics were referred to me for examination and report. Out of these, 15 or 20 per cent. had become insane from ganja smoking. Of these, 8 were afflicted with general mania, 2 amorous mania, 3 demonomania and 1 each with pyromania and religious mania. In one case, I have observed general atrophy and death to result from the use of majum, or sweet cakes made of bhang. I have not noticed any other disease to result from occasional or moderate use of ganja or bhang in any form, although some town people do occasionally indulge in it

Oral evidence.

Question 46.—The cases referred to in my letter were cases which were sent to me in my capacity as Civil Surgeon for report to the Magistrate. I base my statement upon the record of such reports made by me. My report was in each case based upon the information given by the police or furnished by the lunatic himself or his relations. I could not say that the opinion reported in any one case was one which, speaking professionally, was based upon adequate observation. The reason is that they were just passing through my hands, and the time for observation was limited. The important point was to decide whether the man was a lunatic or not, not what the causes of his insanity were, although the cause had to be entered in the Forms A and C, and it was accordingly entered, so far as could be ascertained from the brief period and opportunities afforded for observation and as communicated to me. I do not think the cases are worth laying before the Commission. I have been in independent charge for the last twenty-five years.

80. *Evidence of* Rao Bahadur Thakordas Kikabhai, *Bania, Assistant Surgeon, Wadhwan Civil Station, Kathiawar.*

1. (*a*) Bhang: (1) my own personal experience as regards its effects when taken occasionally in moderate quantities; (2) experience derived from observing its effects on relatives, friends, religious mendicants, jogis, atits, fakirs and class of people who are votaries of the god Mahadev. I have seen people who are occasional moderate consumers as well as habitual moderate consumers. I have also seen occasional excessive consumers and habitual excessive consumers. (3) My coming in contact with different classes of people professionally is also one of the sources of information.

(*b*) As far as charas is concerned, I have neither personal experience nor have I had any opportunities of observing its effect on others. What little I know of its effects and uses has been derived from statement of others.

(*c*) Ganja.—I have no personal experience as regards ganja. But I have seen many persons who are addicted to its use. Also I had opportunities of observing its effects on friends and others when indulged in occasional and habitual moderate and excessive quantities.

(*d*) Besides all these sources enumerated above, there is one other source which I must not omit to mention, and this is the study and perusal of medical works.

2. Dr. Prain's definition can be accepted for this province except that the bhang sold in these parts is not the leaves only of the hemp plant as stated by him. It is always more or less mixed with seeds. There are various names by which bhang is known in this part of the country, and these names with their meanings are explained below. Ganja and charas go by the same name here as in Bengal.

The following are the various names by which bhang is known:—

(1) Vijia. This means giver of success. (2) Dnyanvali, meaning creeper of knowledge. (3) Samitdevi, meaning giver of knowledge. (4) Sabji. (5) Bhang is also commonly called "Lilagar." (6) Siddhi. Literally means accomplishments of purpose. Bhang is so called because it is used by jogis and ascetics to concentrate their mind when practising jog with the object of attaining one or more of the eight principal siddhis known to the Hindu mythology. The names of these eight principal siddhis are—

(1) Anima; (2) laghima; (3) garima; (4) pathima; (5) parkaya pravesh; (6) durgaman; (7) durviukshan; (8) adrashya.

The "chur" variety of ganja of Dr. Prain is generally known in this part of the country as ganja-no-girdo.

Ganja is also called "sulpha" or "lila."

19. Ganja and charas are generally used for smoking purposes only. Ganja is more in use than charas in this part of country. Charas is not known to many in this part. Atits, khakhis and yogis are the only class of persons who to my knowledge supply few instances of ganja drinking, but this is more the exception than the rule.

23. Bhang is generally used for eating and drinking purposes only. Bhang smoking is not known. Persons accustomed to ganja smoking when they cannot get ganja sometimes smoke bhang; but these instances are very rare.

28.	Quantity.	Price.
(*a*) Bhang, habitual moderate .	1 to 2 drams about	1 pie to 1½ pie.
Habitual excessive	6½ drams	1 pice.
(*b*) Ganja habitual moderate .	½ to 2½ drams	1 pie to 4½ pies.
Habitual excessive	3 to 6 drams	2 pice to 1 anna.

Besides these, cases are seen in which large quantities of bhang as well as ganja are consumed by yogis and atits. In these exceptional cases ¼ seer of ganja and ½ seer of bhang are consumed by a single individual occasionally as well as daily.

29. Bhang is ordinarily mixed with black or white pepper. It is not as a rule mixed with any poisonous drugs, but some samples of bhang contain an admixture of ganja-no-girdo, which is mostly got rid of by the washing process to which it is subjected before it is prepared for drinking purpose. Some fakirs and yogis mix it with dhatura seeds for the object of increasing its intoxicating effects. It is also exceptionally mixed with jowari grains and jowari roots to intensify its effects; well-to-do class mix with various cooling and stimulating drugs, such as cucumber seeds, marsh melon seeds, watermelon seeds, fennel seeds, saffron, almonds, charoli (kernels of *Buchanania latifolia*), pista (kernels of *Pistasia vira*), dried rose buds, confection of roses, cardamoms, sugar, milk, and poppy seeds. Ganja is never smoked alone. It is always mixed with tobacco. Before it is mixed with tobacco it is washed to remove the colouring matter. After it is thoroughly washed, which appears by the washings coming out clear and colourless, it is squeezed between both the palms and then mixed with tobacco, and then put in a chillum Exceptionally it is mixed by yogis, khakhis, and fakirs with dhatura, *Calotropis gigantea*, arsenic, also with dried rose flower buds, otto of roses, cardamoms; sometimes it is washed with the juice of sugarcane. The poisonous drugs are added to intensify its effects; others are added for their flavour. It is also mixed with goodaku, which is a preparation of jagri and tobacco. Some people prepare a special chillum from sugarcane and smoke ganja in it. The object of smoking thus is to mitigate the local irritant effect on the throat. The ordinary bhang massala of the bazar consists of black pepper, poppy seeds, almonds, fennel seeds and rose buds. Besides the ordinary massala other drugs enumerated above form the special massala of the well-to-do.

Bhang is used for eating and drinking purposes in the following different ways:—

(1) It is prepared in the form of powder for eating purpose. At first bhang is roasted on gentle fire till it assumes a reddish-brown colour and then reduced to fine powder. This is mixed with equal quantity of sugar or a little salt and pepper according to taste and taken.

(2) Roasted gram and dry dates are charged with bhang, salt and pepper by certain process and taken by some for the purpose of intoxication.

(3) A kind of sweetmeat is prepared from bhang called mahajoon. The ordinary mahajoon that is sold in bazar is generally

composed of sugar, ghee, and bhang. It is prepared thus :—The required quantity of bhang is steeped in water for some time, then it is mixed with equal quantity of ghee in a tinned vessel, and the vessel is put on fire. The mixture is allowed to boil, taking care that after it is being put on fire it is constantly stirred up. Boiling is continued till all the water is evaporated, and the mixture is then removed from the fire, and while hot, it is strained through a piece of cloth. By this process you get an oily solution of bhang, called bhang-noo-ghee, with its colouring matter. The refuse is thrown away. The oily solution is subjected to washing to remove its colouring matter. The washings are thrown away. Then sufficient quantity of sugar is taken, to which a little water is added, and the vessel containing sugar and water is put on fire; just as the sugar dissolves, froth collects on its upper surface. Milk and water are added with the object of removing the dirt of the sugar. Addition of milk and water brings the dirt in the form of a thick scum on the surface of the saccharine solution. This scum is removed. This addition of milk and water is repeated until the saccharine solution becomes thick, clear and of syrupy consistence. This is now mixed with the prepared ghee of hemp, and brisk stirring is continued for a few minutes. This is then poured in a flat dish and allowed to solidify in the form of a cake, which is divided into lozenges to which gold or silver leaves are applied. This is the ordinary mahajoon of bazar. When specially prepared it is mixed with stimulant and savoury substances.

(4) The liquid preparation of the bhang is made as under. At first it is roasted on gentle fire until the leaves assume a reddish-brown colour. It is then put in a cup and steeped in water for about ten to fifteen minutes. The water is strained out and fresh water again added for washing it. This washing process is repeated till the washings come out clear and colourless. When thus freed of its colouring matter, some black or white pepper seeds are added to it and pounded on a stone slab with a cylindrical stone pestle, with the addition of little water so as to reduce it to a pulpy mass. This pulpy mass is mixed with required quantity of water varying from a pint to a pint and a half or more for one person, and strained through a piece of dhoti cloth. This straining process is repeated three times over, and the liquid thus prepared is ready for drink. The refuse is thrown away. This process is generally practised by habitual consumers. Persons who take it for occasional luxury generally add all the substances shown in answer to question No. 29. The liquid thus prepared goes by the name of "maya"—literally means worldly regards.

(5) There is another liquid preparation, which is solely prepared in milk as under :—Required quantity of roasted bhang, which varies from 2 to 3 tolas, is tied up in a piece of clean muslin cloth with a twine ; this is then tied to a piece of stick in its centre. This stick is put horizontally over the edge of the vessel containing milk in such a way that the bottom of the bag containing bhang just touches the level of the milk. The vessel is put on fire. The milk, while boiling, rises and falls, thus extracting the active principle of bhang in the bag. The milk is boiled for about an hour or more according to the intoxication required. Now sugar is added. Then the vessel containing milk is removed from the stove and allowed to cool. This liquid preparation is more intoxicating in its effects than the one given above.

30. Ganja is generally, though not invariably, smoked in company ; bhang is indulged in solitude as well as in company. Ganja is smoked by males as well as females of the lower order ; children under 14 never smoke ganja. It is not confined to any time of life. Bhang is indulged in by all classes of people. Both males and females indulge in it, but the latter form the minority. Children as a rule do not indulge in bhang, but occasionally they are initiated by their parents and relatives.

31. Habit of consuming ganja as well as bhang depends on company, and the habit is not so easily contracted like opium or alcohol. If one indulges in it for about a month or two, he gets longing for it and thus the habit is contracted. It is not so difficult to break off this habit. Moderate consumer may attain an excessive habit, but all this depends on company. Ganja-smoking is generally prevalent in working class and lower order as well as yogis, fakirs and atits; while bhang is used by all classes of people, upper, lower and middle. It is more used in hot season because it is cooling. Ganja is hot. For charas I have no experience.

32. Generally it is customary for the votaries of Mahadev to indulge in bhang on "Shivaratri," which falls on Mahavad 14th. It is a belief that Mahadev was very fond of this drink, and hence the custom has become prevalent. It is also indulged in during "Holi" holidays. I know of no religious obligation enjoined, and it is not considered essential. Generally its use is temperate, but in some cases it is excessive. It does not lead to the formation of habit. It is not in any other way injurious.

36. I think that to a certain extent alcohol is substituted for bhang. Indulging in this drug for narcotic purposes is considered to be opposed to the views generally entertained by modern civilization and education, and hence they having regard to modern ideas have recourse to alcohol. They also think that alcoholic intoxication is immediate and more pleasant in its effects. Establishment of liquor shops in many more places than before is also another cause for its substitution. Farms in hemp drugs are not sold for last two or three years in certain villages, because the farmers say that there are no customers for these drugs. In some places increase in revenue from farming alcoholic liquors is sufficient to lead one to an inference that alcohol to a certain extent is substituted for hemp drugs. The use of bhang in higher classes has been, to a very great extent, given up for reasons already explained, and they take to the use of liquor, indulgence in which is to a certain extent increased by the facilities which the forward class of natives who call themselves Soodharavalas obtain by their social intercourse with people of various creeds and castes who are not prohibited from indulging in these drugs religiously, and this class has spread the contagion to their less intelligent brothers. Even they have the audacity to accuse medical men, particularly native practitioners, as the cause of the mischief.

Hemp drugs are the only drugs which are used

by a large class of people, such as yogis, fakirs, atits, etc., and there is every probability that alcohol will be substituted if these drugs are prohibited to them.

37. The effects produced by charas-smoking are similar to those produced by ganja-smoking, except that the effects are intensified in charas-smoking. The nature of the effect of bhang-drinking is different from smoking ganja. Intoxication of ganja is stronger, more rapid and less lasting. In the case of ganja the intoxication lasts for about three hours. Ganja is considered hot. Bhang is cooling. The intoxication of bhang is milder, not so rapid and more lasting than ganja. In case of bhang the intoxicating effects are gradually developed, while in case of ganja they develop immediately. The intoxication of bhang lasts for about six hours.

39. All the different preparations of hemp plants are not used both for drinking and smoking, and so it is difficult to determine the effects of the same preparation both when drunk and smoked. Ganja is generally used for smoking; in very few exceptional cases it is taken internally. Charas is generally smoked. I am not aware of its being taken internally. Bhang is generally drunk. Of all the three above preparations bhang is considered the mildest preparation of hemp drugs. This appears to me to be true, because the active principle of the plant is less in quantity in the leaves than in the flowers of the plant. The resin is the active and intoxicating principle of the plant, and hence it is that charas, which is the resinous exudation, and ganja which is the flower tops, contain more of the resinous principle than the leaves, and hence they are stronger and more intoxicating than bhang. The general effects of ganja smoking on the constitution are exhilaration of spirits, heaviness of head, which sometimes amount to actual headache, slight injection of eyes and dryness of the throat, increase of appetite, and sometimes burning at the pit of the stomach. The effects produced by bhang to persons not accustomed are exhilaration of spirits, dryness of throat, increase of appetite, sensation of flying in heaven, lengthening of time, concentration of the mind on a particular object to which he is inclined before taking it. As a rule all these symptoms are not noticeable in habitual consumers, except slight exhilaration of spirits, general vigour, and concentration of mind on objects to which they are inclined before taking the drug; thus persons of religious turn become more religious under its use. Their ideas are concentrated on one true God. If persons not accustomed to its use indulge in these drugs excessively they do become insane, but to those who are habituated, the habit becomes a second nature; and the drug acts more as a food than a narcotic. No injurious effects are produced to habitual excessive consumers provided they take good nourishing food.

40. Yes. Native vaids do prescribe bhang as medicine. I do not know of its use in cattle disease. Different diseases in which it is used are shown below.

According to native medicine bhang mixed with dried ginger, black pepper and long pepper is used in consumption. It is also used for bilious complaints, for increasing intelligence, for strengthening sexual organs, for catarrhal and skin diseases, for increasing appetite and knowledge, steadiness of mind, and flatulence. In short this drug is supposed not to give old age. For these diseases it is variously mixed with different drugs. Bhang is also used for reducing tin to the form of oxide, which goes by the name of "vang." This is used in gonorrhœa, &c., by native vaids.

41. (*a*) It is digestive.

(*b*) It alleviates fatigue.

Pills made of bhang, black pepper and treacle are used as febrifuge.

(*c*) I have no personal experience of its beneficial effects as a preventive of disease in malarious and unhealthly tracts, but it is believed to be so.

(*d*) It is used by jewellers, yogis and other persons who require concentration of mind.

42. I consider moderate use of bhang and ganja to be harmless. I have personally seen many persons in perfect health who have been using these drugs for years together.

44. The immediate effect of the moderate use of these drugs on the habitual consumer is refreshing and exhilarating. It does not produce so much intoxication because he is accustomed to the drug. It does create some appetite. The effect in the case of ganja lasts for about 2 or 3 hours, and in the case of bhang it lasts for about 4 to 6 hours. There are no after-effects except temporary longing for it and slight uneasiness.

45. (*a*) to (*f*) No.

When taken in habitual moderate doses, it is not injurious in any way. When indulged in habitual excessive of doses, I have not seen any injurious effects, provided that good nourishing food is taken after its use. Persons not accustomed to its use indulging in excesses are the class of persons who generally fall victims to various diseases such as asthma, insanity, etc. Neither hereditary effects of any kind result from the use of these drugs, nor the progeny is affected. Even the abusive use of these drugs is not so injurious as alcohol.

46. One who is habituated to the use of these drugs is not affected as regards his constitution in any way, provided he takes good nourishing food, because when once the habit is formed, these drugs do not act as narcotic on him, but act more as food. In some cases, asthma and bronchitis do occur, but a man not accustomed to its use, if indulges in it excessively, then his constitution is affected both physically and mentally. His face assumes a peculiar expression, his eyes appear always red, sensation of floating in air, in rare cases impotence and insanity is not uncommon; when insanity occurs, it is generally of an exciting character. Sometimes he becomes fearful. The existing tendency of mind is intensified, as is seen in run-amuck cases. The insanity produced is generally of a temporary character. I know of a case in which a moderate consumer of ganja, by his going to excess, became insane. He has been under my observation since 3rd September 1887. In this case the insanity was of an exciting or maniacal character. He has shown no symptoms of excitement since January last. In this case I consider excessive ganja-smoking to be the exciting cause of insanity. I have had no opportunity of seeing any case which would justify me in stating that the symptoms may be reinduced by the use of the drug after liberation from restraint.

47 and 48. No. It is neither a hereditary habit nor the progeny is affected.

49. Both bhang and ganja are used for aphrodisiac purposes, but the use for the purpose is always in moderation. Both delay seminal emission during sexual intercourse. I have heard that it is used by prostitutes for the purpose of excitement. Its narcotic use is, and ought to be, more injurious, as the quantity required for this

effect is more than that required for producing aphrodisiac effects, and also because, when taken for aphrodisiac purposes, it is generally taken mixed with other stimulating substances, such as musk, saffron, sugar, etc., etc., which counteracts its depressing effects. But there is another feature which must not be lost sight of, and that is when taken as an aphrodisiac, it is naturally followed by sexual intercourse, and there is every probability of its leading to excesses, which may thus indirectly weaken the constitution more than it would do when used simply for narcotic purpose. Even when taken as narcotic in moderate doses it will produce its effects on sexual organs, but the mind of the consumer, in this case being not inclined towards intercourse, he will not go to excesses, and then the evil effects of excesses will not result. The chief characteristic of hemp drugs is that the existing particular tendency is intensified and strengthened by their use, and his train of thoughts after indulgence runs in the same direction. Thus a man of religious turn of mind becomes more enthusiastic in religious matters by using hemp drugs. People of immoral tendency are likely to hanker after females, and so on.

50. Excessive use of these drugs, as a rule, produces impotence, and even if he is inclined to sexual intercourse, he is physically unfit to gratify his desire. People accustomed to take excessive doses do not feel so much impotence as a beginner would feel when he takes it in excessive dose.

56. Dhatura, arsenic and such poisonous drugs when mixed with ganja, either in moderation or ecexss, intensify the intoxicating effects of ganja. Other non-poisonous substances are added to mitigate its local irritant effects and to make it more delicious and pleasant. In the case of bhang, ingredients forming bhang massala are such that some of them act as stimulant, and some as cooling and refrigerating. When dhatura is added, the intoxicating effect become more marked. It is only mixed with dhatura when prepared for administeration to others for criminal purposes.

57. No experience.

---

81. *Evidence of* Assistant Surgeon Abdul Ghani, *Hakim, in charge of Gadag Dispensary, Gadag, Dharwar District.*

1. My experience as an Assistant Surgeon of nearly seventeen years' standing, and by information collected from some persons here.

2. Yes, all these names are accepted in this province. The plant of ganja does not grow here, nor is it cultivated. The drug is imported in this place. Flat ganja is generally used here.

19. Ganja and charas are used for smoking. Ganja is pounded and mixed with sugar and formed into bolus and eaten in this part as an exhilarant. Ganja is used both externally and internally as a medicine. Mājum is a preparation like the above.

28. Ganja being smoked generally here, a habitual moderate consumer smokes ¼ anna worth of ganja on an average daily, and an excessive habitual consumer 1 anna per diem.

29. Ordinarily ganja is mixed with tobacco for smoking; exceptionally dhatura is mixed with it by excessive smokers, and by these smokers sometimes nux vomica is added.

The object of adding dhatura is to have excessive intoxication. Nux vomica is put as a nervine tonic, as excessive use of ganja brings on exhaustion. I have heard of persons smoking ganja, then eating after a time or smoking some preparation of opium, and latterly drinking liquor (alcohol). Ordinarily here no mixture or massala of bhang is sold, but the component ingredients are bought separately. Bhang or subji is made into a sherbet mixture. It contains sugar, poppy seed juice, almond pulp, cardamom seed, and milk. All these are pounded separately and mixed with water, etc., and drunk.

30. None of these drugs, especially ganja, is taken in solitude. Ganja is smoked in company and is used here by adult males, and neither by females or children.

31. The habit of consuming ganja or bhang is easily formed. It requires an effort to break off the habit. There is a tendency of moderate habit to develop into excessive.

32. Amongst the Hindu Brahmins "*ghota*" is used on Shivaratri. Ghota is prepared from ganja in this part. Ganja is cleansed, washed and is mixed with water, milk, sugar, almond pulp, poppy seed pulp, cardamoms, and then drunk as sherbet. For the sake of mirth, green leaves or the whole of the plant of ganja is cooked with mutton and eaten. The use of bhang is not considered essential socially. The use on such occasions is temperate and would not form into a habit. Bairagis or religious mendicants use ganja and develop the habit to excess for the concentration of their thoughts towards deity and induce impotence.

36. There is a slight increase in alcoholic drinks, but its substitution for ganja, bhang, etc., cannot be ascertained. Some persons or sects who are prohibited by their religion, etc., from using alcohol have only ganja or opium to resort to, and also that the latter two drugs are cheaper than alcoholic drinks.

37. The difference lies in the degree. Smoking charas has an instantaneous effect. Ganja smoked takes a longer time to have its effects, and bhang still more so than charas.

39. There is no degree; all the preparations have the same effects. It depends upon temperament. Moderation in some will be excess in others. The first effects of any of the preparation are that it is stimulant, excites imagination, increases appetite and is an aphrodisiac. The worst effect of excessive use is that it produces dyspepsia, wasting body, cough, dysentery, impotency. It first produces illusions and then insanity.

40. Ganja is used by native doctors as refrigerent, diuretic, narcotic, antispasmodic. It is used also externally. It is also used in cattle diseases, and also to promote appetite.

41. Moderate use of ganja and bhang is observed to be beneficial in persons who have come under my observation.

(*a*) In moderation ganja or bhang are observed to be beneficial by me as accessory to digestion.

(*b*) Has also staying-power under severe exertion, and it alleviates fatigue.

42. Medicinally and in moderation the use of the drug will be harmless, but when this degree is broken, it is not beneficial, as the use may develop into excessive habit, which will be very baneful.

44. The immediate effect on a habitual consumer is that it is an excitant and refresher. In larger doses it intoxicates. It allays hunger and also creates appetite in moderate dose. The effect of moderate dose lasts for about 3 hours. The after-

effects are exhaustion, depression, etc. In habitual excessive smokers it produces uneasiness and longing.

45. The moderate habitual uses are not very perceptible in their effects physically, only that the smoker or drinker is very acute to receive observation and pointed in his remarks, rather rash and quarrelsome. He is indifferent.

It does not impair the constitution, nor loss of appetite, or cause dysentery, bronchitis. It induces laziness and a little indifference. I have personally known none who have become insane by moderate use.

47 and 48. None has come under my observation under these circumstances.

49. In moderate dose it is an aphrodisiac. Prostitutes here do not use. It stands in the same way for the above purpose as any other narcotic. If this drug is persisted in excess, it causes impotence.

50. In excessive doses it induces impotency, hence religious bairagis, fakirs, use it.

56. In moderation no admixture is done except of tobacco. In excess bairagis or religious mendicants use dhatura for having more intoxication. Dhatura is also used for criminal purposes, to facilitate robbery; it is added to majum or any other sweetmeat.

57. Ganja is eaten by mixing with sugar, "gur," jagri, and drunk in the shape of sherbet, or as it is called here "ghota" or bhang.

---

82. *Evidence of* Assistant Surgeon B. H. Nanavatty, *Parsi, and Teacher of Surgery and Midwifery, Medical School, Ahmedabad.*

1. My knowledge of this subject is derived partly from personal observation, and partly from information received from a large number of habitual ganja smokers.

2. The definitions herein mentioned may be safely accepted for this district also. Bhang is usually known as bhang and is sometimes called sabji by the people. Charas appears to be hardly at all used in these parts, but the people know it by the same name. Ganja is the name given to the flowering tops of the female plant, these being usually compressed flat, and of a brownish-green colour. It is recognised by the same name in this district.

19. Ganja, as a rule, is used for smoking purposes only; but some ganja smokers tell me that when for some reason or another they can't get the same to smoke, they satisfy their craving for it by eating a small quantity of the powdered leaves which have been previously well washed.

23. Not to my knowledge.

28. A habitual moderate ganja smoker spends about a quarter or perhaps half an anna over it. A habitual excessive ganja smoker would necessarily spend a trifle more.

29. (*a*) Ingredients ordinarily mixed with ganja are—1st, tobacco; 2ndly, a paste made of powdered tobacco and treacle (called gadakoo).

(*b*) Ingredients exceptionally mixed with ganja are (1) opium, (2) powdered cubebs, (3) cardamom seeds, (4) dhatura, and (5) nux vomica.

When a deep and prolonged sense of intoxication is required, ganja is said to be smoked along with opium.

Majan or majum, a preparation of ganja, usually consists of sugar, milk, ghee, poppy seeds, and sometimes of dhatura seeds and the powder of nux vomica.

The usual ingredients of "bhang massala" are:—Black pepper, cinnamon, cardamom seeds, poppy seeds, carraway seeds; and to these are occasionally added rose leaves, almonds, and pistachios.

30. Though it is often smoked in solitude, it may with truth be said that the votaries of ganja as a rule smoke the drug in company and seldom singly. Ganja smoking is usually practised by the males, adults, middle-aged, and the old. So far as I am aware, it is not at all usual for children to consume any *one* of these drugs.

31. The habit of ganja smoking is easily formed. A young man is perhaps the friend and associate of a ganja smoker, who hands him over the ganja pipe, which the former, not unwillingly, accepts. The habit is thus easily formed. I have noticed, and several ganja smokers assure me of the same, that a long and confirmed habit of ganja smoking can seldom be given up; that if withheld, the craving for it continues, and that the man would rather, if possible, go in search of the company where the drug is usually smoked, than do without it. A recently acquired habit can, however, be broken off with some perseverance and force of will on the part of the man. The habit of ganja smoking does not necessarily develop into the excessive, unless the man is in the company of heavy ganja smokers, *e. g.*, fakirs, jogis and others.

32. After a careful enquiry I find no religious or social custom sanctioning the use of any of these drugs.

36. I have no reason to believe that alcohol is being substituted partly or wholly for any one of these drugs; nor, in my opinion, is it likely that it could be so substituted, owing to its being a more costly article than the others.

37. The effects of bhang drinking are in my opinion not much different from those of ganja smoking, except, perhaps, that the intoxication produced by the former is slightly milder in character and later in its appearance.

40. Powdered ganja leaves are occasionally prescribed in pill form by native quacks to relieve colicky pain; they are also used in combination with milk, turmeric and flour as a paste or poultice for painful protruded piles.

41. (*a*) Ganja cannot be considered as a food accessory or digestive.

(*b*) It is a popular belief amongst the ganja smokers that with its help they could perform hard labour and feel less fatigue, even though they may happen to have for the time less than their usual allowance of food. I share in this belief to this extent, that as under the influence of this drug certain physiological effects are produced, *e.g.*, complete anæsthesia to pain and marked diminution of general sensibility, the man would temporarily be able to undergo severe fatigue and to do heavy work, without feeling himself the worse for it at the time, though when the effects

are over, he would probably feel himself wretched and completely worn out and exhausted.

(*c*) Ganja or bhang possess no febrifuge properties, nor are they known as preventives of any other disease in any unhealthy tracts.

(*d*) Broadly speaking, in no way can the habitual use of ganja smoking or the use of any of its allied preparations be said to be beneficial.

42. I cannot say that the moderate use of any one of these drugs may be considered to be harmless; for every one of them is an excitant of great power, which may lead a man under certain conditions (*e.g.*, provocation, vicious company) to indulge in them more freely than usual, and whilst under their influence to commit acts of violence or of murder.

44. The immediate effect of ganja smoking upon the habitual consumer is of a pleasing and exhilarating kind. I believe he becomes possessed of a feeling of happiness and contentment, whilst he notices all sorts of ideas, both pleasant and grotesque, rapidly passing through his mind. His eyes, which perhaps before were dull and listless, now become bright and shiny, and he feels himself now up to his usual work, and in this way the effects may be termed refreshing.

Ganja smoking produces in the habitual consumer a slight heightening or exhilaration of the spirits, which can hardly be said to amount to intoxication in him. When the habit of ganja smoking is first formed, the appetite is said to be increased; but when the habit is long continued and confirmed, it, on the contrary, is lessened. The want of subsequent gratification produces a sense of discomfort and a longing for it; it makes the man peevish and irritable, and renders him unfit for the regular or full performance of his usual avocations for some time.

45. Yes, ganja produces injurious effects, both physical, mental and even moral. It impairs the constitution, for a habitual ganja smoker is a thin, somewhat emaciated man, with sunken eyes and hollow cheeks. He is seldom known to be fat or corpulent. It produces loss of appetite and strength, though its early use occasions in some a ravenous sensation, not even completely appeased by food. It is a popular belief amongst the ganja smokers that a long-continued habit produces diarrhœa and dysentery, unless these evils are counteracted by an abundant supply of wholesome food, with especially a liberal allowance of ghee and other oleaginous materials. My experience supports the above-made statement. It blunts the moral sense and induces habits of laziness. I do not think it necessarily induces habits of immorality. The constant irritation of the bronchi by the ganja smoke leads to their chronic congestion and to the production of bronchitis.

Cases of insanity following upon the habitual use of ganja, etc., have not come under my observation, and my experience of this subject is very limited.

46. In this connection it would be sufficient to state that the habitual excessive use of the ganja would produce the same set of evil symptoms as those mentioned above, but that they would necessarily be more intense and marked.

47. Ganja smoking does not appear to be a hereditary habit, nor does its use in any way affect the children of the moderate consumer.

48. Ganja smoking does not appear to be a hereditary habit, nor does its use in any way affect the children of the excessive consumer.

49. After a careful enquiry I could not find that any of these drugs are habitually used as aphrodisiacs. I do not know if these remedies are used by prostitutes for a similar purpose. I have not come across cases of impotence which could be distinctly traced to the habitual use of ganja smoking, or of any of its allied products.

---

83. *Evidence of* Hospital Assistant Bhau Saccaram, *Brahmin, Raipur Dispensary, Ahmedabad.*

1. As a member of the Bombay Medical Subordinate Department, of nearly thirty years' standing, I have had frequent opportunities of obtaining information regarding matters connected with hemp drugs, in regard to which my answers are framed.

2. The first is known here by the name of bhang or sabji. The second is named charas, and the third goes under the general name of ganja, without any special names for its different varieties.

19. Ganja is used only for smoking; charas is rarely, if at all, used in this district, as far as I know.

23. Bhang is never used for smoking to my knowledge.

28. For habitual moderate consumers, bhang half tola, worth one pie, ganja half tola, worth four pies. For habitual excessive consumers, bhang one and a half tola, worth one pice, ganja two tolas, worth one and a quarter anna.

29. Ganja is ordinarily mixed with tobacco, and I am not aware of any exceptional case in which other ingredients are mixed with it. Poor people mix pepper with bhang, but well-to-do persons mix also sugar, almond, poppy seeds, rose buds and cardamoms, etc. The object of these mixtures is to make it more palatable. I am not aware of the use of dhatura, opium and other substances mentioned in the question in forming the mixture.

Yes. The ingredients are the same as those mentioned above.

30. Habitual consumers of bhang and ganja use them alone or in company, as it best suits them. But those who occasionally, and especially in the hot season, take bhang, generally take it in company. It is only confined to the male sex, and to persons above the age of 20. It is not usual for children to consume any of these drugs, as far as I know, in this district.

31. The habit of consuming these drugs is easily formed in the company of persons addicted to them. It is difficult to give up when once formed. There is generally a tendency from the moderate to the excessive.

32. In Gujarat on the Maha Sivaratri holiday Brahmin worshippers make Abhisheka (sprinkling by means of a lota with a hole at the bottom hung over the Lingum) of bhang water on the emblem of Siva, accompanied by recitations of

Vedic mantras. Persons suffering from illness or calamities take vows to propitiate the god by means of the above religious rite. Moreover, Hindus drink bhang on the Shivaratri and other holidays, and Mussalmans drink it during the Moharram to make themselves merry. Bhang is said to be the the favourite drink of Siva. By occasionally drinking bhang it does not appear that injurious habits are formed.

36. As alcohol is now easily obtained in every town and village, some people substitute alcohol for hemp drugs. This is on account of the opening of liquor shops all over the country.

37. Charas is more intoxicating than ganja. Bhang drinking is not so intoxicating as smoking ganja or charas.

39. The smoking of any preparation of the hemp plant is not less injurious than drinking or eating the same. In fact bhang is drunk or eaten, and ganja and charas are smoked. The preparations of hemp, when taken in moderate doses, impart at first a gentle reviving heat, and then a refrigerent effect over the whole body. They exhilarate the spirits, excite the imagination, increase the appetite and promote sexual desire. If habitually taken, they produce indigestion, wasting of the body, melancholia and impotence.

Taken in large doses, and by those who are unaccustomed to their use, they lead to loss of memory, and in some cases charas and ganja smoking lead to insanity. By smoking or drinking hemp preparations the eyes become red.

40. Native doctors use bhang in cases of convulsions of children as antispasmodic. As far as I know, none of the drugs is used in cattle diseases.

41. (*a*) Yes, but not when habitually taken in large doses.

(*b*) Yes.

(*c*) Not to my knowledge.

(*d*) They give temporary relief from anxiety or grief.

42. Yes.

(*Vide* answers 39 and 41.)

44. It is refreshing. It does produce intoxication. It allays hunger. After a few hours it creates appetite. The effects last from two to four hours. It induces sleep, at the end of which no effect remains. The want of subsequent gratification produces no longing or uneasiness.

45 and 46. I have no sufficient information to answer this question.

47. It does not become a hereditary habit or affect the children.

48. I do not think the excessive use of any of these drugs creates a hereditary habit or in any way affects children of the excessive consumers.

49. It is practised as an aphrodisiac. It is so used by prostitutes. As far as I know its use for this purpose is not more injurious than its use as an ordinary narcotic. I do not think that its moderate use tends to produce impotence.

50. The excessive use of these drugs is generally not practised as an aphrodisiac. It serves as an antaphrodisiac. For this reason it is used by jogis and others wishing to curtail their sexual desires, but not by prostitutes. It tends to produce impotence.

56. The admixture of hemp with other substances used in moderation has a tonic, aphrodisiac and digestive effect. In cases of excessive use its effect is intoxicating, narcotic and productive of mental imbecility.

57. I am not aware of ganja or charas being eaten or drunk.

57.(*a*) Generally fakirs and sadhus, who pass an idle life, and lower classes, such as labourers, make use of hemp drugs as a relaxation from anxiety or fatigue, or to ward off exposure, to excessive heat or cold. If these be prohibited, most of them will have recourse to alcohol, which is more mischievous in its effects, physical, moral and mental, and at the same time more expensive than any of the hemp drugs.

---

84. *Evidence of* Hospital Assistant Rajana Lokajee, *Mâli Telgu, Thana.*

1. I have known the men who used to take the hemp drugs while I am in the Medical Department.

2. The hemp plant is not cultivated in the province I reside. The leaves of hemp are called bhang and the flowering tops are called ganja. Charas is not known.

19. Ganja is used as a smoke. Charas not known. No other use is known. Sind, North and Central India.

23. Not known.

28. *Ganja.*—Half a tola, cost two annas.

Bhang.—One tola, cost half anna.

The excessive smokers use it constantly and no average can be given.

29. (*a*) Ganja is mixed with equal parts of tobacco.

Four tolas bhang is mixed with the following articles, *viz.*—

Rosebuds 1 tola, poppy seed 1½ tolas, almond 2 tolas, sugar 1 seer, and water 4 seers is made into a drink.

(*b*) Unknown.

Bhang massala not known.

30. No fixed quantity can be stated for company; but a single man will consume a quarter of a tola per day. Among gosavis, they use the articles throughout the whole life. For elderly children bhang is given.

31. (*a*) and (*b*) Yes.

(*c*) There is.

32. The hemp is regarded by the gosavis, who are the principal consumers, to be the favourite drug of god Mahadev, so they take it in that god's name, first praying that god; but there is no authority, nor it is considered as an essential thing in the religious book. Yes; from superstitious notions it may lead to the formation of the habit.

37 and 39. Not known.

40. Yes; for dysentery and diarrhœa is used by some native doctors. For cattle disease not known.

41. Bhang is said by the gosavis that it is digestive.

(*b*) It is an excitant, and under the influence of the drug the persons of habitual use work without feeling fatigue.

(*c*) and (*d*) Not known.

42. Not known.

44. The immediate effect is excitement. It is felt refreshing for the time being. It is not intoxicant to the habitual consumer, but it is so to a new person. While under influence of it the man may not feel appetite, but it does not allay it entirely. It has no particular effect in creating appetite, but men are seen to require greater quantity of food when they become habitual consumers than when they were not; but it has no immediate effect of this kind. Occasional consumer also takes greater quantity of food for one subsequent meal. On habitual consumer the effect lasts apparently for an hour or so and on occasional consumer for some hours and in proportion to the quantity taken. On the habitual consumer there are not apparently any of the so-called after-effects except that they are weaker, of changed complexion (sallow) and temper, but these are not immediate. On the occasional consumer there are depression of spirits, languor, melancholy, and disinclination to work, constipation. To the habitual consumer such a want causes great uneasiness, craving and longing; but to any other man, who once has used it, would not necessarily like to take it again.

45. Using these drugs moderately is a very uncertain thing. However, those who are seen to use them pretty moderately are seen growing weaker and sallower; are easily excited and moved and become of weak and blunt intellect. So they impair the constitution. As it is seen to cause increase in the quantity of food required for a meal without in proportion causing the system robust, it must be regarded to interfere with the digestion and nutrition, though it does not cause loss of appetite. As it breaks down the constitution it may predispose to these diseases. It induces laziness. It has been observed to weaken the intellect. Many of the insane cases have a history of the habit; but still a number of persons use it through life without an attack of insanity. It is more of an exciting than a predisposing cause. The type of insanity is mania generally, of course preceded by melancholia; and as it produces decrease of nervous power, this disease is more likely to be permanent, or if it has ensued after a recent habit it may be temporary.

47 and 48. Not known.

49. I have known people to make use of these drugs to increase sexual powers; but, as far as I am aware of, it is used by males only. People who resort to these drugs are generally in a weak state of health engendered by loose habits and excesses, and amongst such people even moderate use of such drugs produces injurious effects. I am not aware of the use of hemp producing impotence as a direct cause.

50. Excessive use of any of these drugs produces more disastrous results, in that the people who indulge in excess are always found in a state of moral weakness and thus become predisposed to organic diseases.

56. No opinion to offer.

---

85. *Evidence of* Hospital Assistant Jamiatram Jeyashunker, *Nagar Brahmin, West Hospital, Rajkot, Kattiawar.*

1. During my five years' (1879 to 1883) service in Sind and Afghanistan, I noticed, specially in Sind, that as hospitality people offer first to eat some sweet thing, and over this instead of giving water to drink they give generally what is called "thandai," a liquid preparation composed of bhang, sugar, etc. Generally they use thandai daily after noon, with the intention to get pleasure in the evening by adding more quantity of bhang in their community also.

2. Yes, and is locally known by the name of bhang, ganja and charas in my province.

19. Ganja and charas are not only used for smoking, but also used for chewing (ganja chiefly). The Brahmin puravia (as of Agra, Delhi, etc.) who have some religious objection in smoking, use ganja and charas in the form of sweet preparations, such as majum, kharek, fakki, yakuti, etc.

23. Bhang, to my knowledge, I have never heard used for smoking.

28.

Allowance per diem.			Cost per diem.		
Bhang.	Ganja.	Charas.	Bhang.	Ganja.	Charas.
			Rs. A. P.	Rs. A. P.	Rs. A. P.
(*a*) One tola .	Half to one tola,	10 to 20 grains.	0 0 2	0 0 3	0 0 4
(*b*) Two to four tolas.	One to two tolas.	20 to 60 grains.	0 0 9	0 0 6	0 1 0

29 (*a*) Ordinarily tobacco is mixed with ganja and charas while smoking, and (*b*) exceptionally dhatura seeds, opium, and sometimes betel-nut are also used.

The object of mixing tobacco while smoking is nothing but to get clean smoke, as ganja and charas both required washing with water before use; and when wet they find sometimes difficulties to kindle, and by mixing tobacco the fire will take place to the substance easily, and smoke will come from the chillum very freely as the wet part dried by adding tobacco. (*b*) Exceptionally, dhatura seeds, opium, nux vomica, betel-nut are also used by some and in joke to increase the narcotic properties, as well as making a fool of others or with some foul objects, as of stealing or of debauchery.

Bhang massala's ingredients are as follows:—(1) poppy-head seeds, (2) rose, dry, unopened flower, (3) almond seed, sweet, (4) charolee, (5) anise (sometimes), (6) black or white pepper, (7) sugar, (8) milk.

30. These three drugs are consumed to a greater extent in company than in solitude. Yes, it is mainly confined to male sex in Guzerat than female. But in Sind, and mostly in upper country, bhang is equally used by both sexes when of age. It is not usual for children to consume any of these drugs.

31. The habit of consuming these three drugs is easily formed in company; and sometimes it is difficult to break off; and there is a tendency in

all the three drugs for the moderate habit to develop into the excessive.

32. Bhang is generally used during hot season and on holidays in company as a cooling substance. Charas and ganja are usually consumed in company of sadhu.

It is a custom amongst the Brahmins to take bhang on the day of Maha Shivaratri. The custom amongst the sadhu of smoking charas and ganja and of taking bhang is considered to be essential, and it is likely to lead into the formation of the habit, and it proves sometimes injurious.

36. I cannot say that alcohol is substituted for any of these drugs.

NOTE.—The consumption of alcohol in my eye has increased and is increasing day after day; the only cause that could be attributed is that alcohol is freely sold, and ready for use anywhere; while bhang, etc., take time and trouble before they are ready for use.

2nd.—Low caste people and labouring class people are under a firm and unshaken belief that they are able to work so hard only by the aid of such liquor. I have known woodcutters after a day's hard work intoxicating with alcohol not having had any idea of their meals.

3rd.—Imitation. As to indulge in alcoholic liquors is considered by half-educated people to be the first step towards reformation and civilization, and, taking their example, poor illiterate and uneducated people imitate them. The proof of the reality of increase of the alcoholic use is the increase of the alcoholic poisoning cases noticed in hospitals.

37. I do not think that there is any difference in the effects in any particular of charas and ganja smoking. The narcotic effects of ganja and charas begin soon after smoking; but in case of bhang drinking the effect is produced in quarter or half hour or longer, depending upon the quantity and quality.

39. I do not know of any such preparations of hemp plant, the smoking of which would in any way be less injurious form of consumption than drinking or eating the same or any other preparation.

I do not think preparations of hemp produce any constitutional effect in small doses; but when in excess people starve under the influence of narcotism and are frequently seen in emaciated and debilitated conditions and some suffering from lung diseases.

The greater number of cases of insanity and mental derangements falling to my lot during my seventeen years of service had the previous history of ganja and charas smoking in excess.

40. Yes, to alleviate pain, preparations of hemp drug are used by native doctors. I do not know whether they are used in the treatment of cattle diseases.

41. The moderate use of charas and ganja and bhang seems to be beneficial in its effects.

(*a*) By it increasing appetite and promoting digestion followed by a free motion.

(*b*) It alleviates fatigue by its narcotic effects.

(*c*) Bhang affects as a febrifuge.

(*d*) Bhang is also tried with more or less success in many diseases, as in tetanus, hydrophobia, rheumatism, and in the convulsions of children and in cholera. Bhang is believed next to opium as anodyne, hypnotic and antispasmodic by some medical men, and consequently given in the above said diseases.

42. I think the moderate use of any of these drugs is harmless if carefully prepared and taken, as I have seen serious cases occurred under the influence of moderate doses of hemp drugs, given by friends with some admixture, as dhatura, opium, betel-nut, nux vomica, etc.

44. These drugs produce dull, heavy head, and succession of unconnected ideas or cheerful activity, giddiness or a tendency to talk, laugh, sing or dance, on the habitual consumer. Sometimes it is refreshing. It produces intoxication. It does not allay hunger. It does not create appetite. Duration of its effects cannot be specified, as it varies with the quality and quantity used. There are not any after-effects, sometimes headache. Yes, the want of subsequent gratification produces longing and uneasiness.

45. I do not think that habitual moderate use of any of these drugs produces any noxious effect. Ganja and charas impair the constitution in long run, specially of the persons taking low diet. It injures digestion to a certain extent. Ganja and charas smoking causes bronchitis. Bhang is used in the treatment of dysentery and asthma. It impairs the moral sense or induces the habits of immorality or debauchery. Yes, ganja and charas produce insanity.

46. I cannot say, as I had not the opportunity of narrowly watching such cases.

The habitual moderate use of these drugs does not appear to be a hereditary habit or to affect in any way the children of the moderate consumer.

49. These drugs are used as an aphrodisiac, but I do not know whether prostitutes are using with the same intention.

57. Ganja is eaten in absence of accommodation for smoking by some as well as those who take religious objection in smoking; the effects of ganja by chewing are milder than smoking.

---

86. *Evidence of* HOSPITAL ASSISTANT SUDASHIO WAMON, *Brahmin, Mansa, Mahikantha.*

1. I have had several opportunities of obtaining information regarding the hemp drug in treating patients in my medical practice, also from the conversation with those who habitually smoke and drink the preparation of the drug. As well as I had tried the drug on my own person on three or four different occasions.

2. I concur with Dr. Prain's opinion on production of the hemp drug, except "trodden under foot," but green bud leaves are pressed and dried in sheds which forms into flat ganja in Deccan Province.

Charas is the resinous matter, but never prepared and used in this province.

Yes. They have the same names as bhang, ganja and charas. There is no hemp plant cultivation in Mahikantha.

19. Yes. Both used for smoking. Charas is not used in Deccan.

23. No; bhang is never used for smoking.

28.

	Smoking ganja.		Drinking bhang.	
	Tolas.	*Cost.*	*Tolas.*	*Cost.*
(*a*)	1 to 4	¼ to 1 anna.	1 to 2	¼ to ½ anna.
(*b*)	4 to 8	1 to 2 annas.	3 to 8	¾ to 2 annas.

29. The following ingredients are mixed with ganja in smoking:—

(*a*) Ordinarily—ganja, tobacco.

(*b*) Exceptionally—ganja, dhatura, opium, jawari root, nux vomica.

Drinking bhang—(*a*) Ordinarily—Bhang, black pepper, ajwan, water.

(*b*) Exceptionally—Bhang, dhatura, nux vomica, black pepper, nurium oleander or kunher root, opium, water.

Occasionally by rich—Bhang, black pepper, aniseseeds, dry rose buds, poppy seeds, cardamoms, saffron, mace, almond, milk, sugar, and water.

The object of admixturing these drugs is to have less or more intoxication.

I know the following preparations made of bhang are locally sold as massala:—(1) majum, (2) shrikhand, (3) yakuti, (4) gulkand, (5) dry date of bhang massala, (6) bhang massala.

(1) Majum is prepared when bhang is fried in ghee and mixed with syrup simple and allowed to dry into cakes.

(2) Shrikhand is prepared when bhang is fried in ghee and finally powdered and mixed with curd, saffron and sugar; the substance becomes yellow and solid in moist form.

(3) Yakuti is prepared by mixing bhang powder with saffron and rose syrup with some spices, and allowed the substance to dry cakes.

(4) Gulkand is prepared when the fine powder of bhang mixed with confection of rose made of rose buds or flowers and sugarcandy, the substance remains solid and in moist forms.

(5) Dry date of bhang is prepared at Visnoga in Guzarat. Dry bhang properly washed in water and well boiled in ghee for two or three hours, then the ghee is mixed with some spices and bachnag (aconite) and the cavity of dates filled in and allowed to soak the substance and preserved.

(6) Bhang massala. It is prepared when bhang powder is finally fried in ghee and mixed with sugar and ajwan.

I have seen all the preparations used by some natives of India, and the last preparation on several occasions used by the regimental soldiers, etc., eating this substance with water.

30. The consumption is not to a large extent but in a small company, and it is mainly confined to the male sex in youth and old age, and not in infancy. Bhang is occasionally used by gentry in hot season, and ganja is smoked extensively by low caste people or labourers, as well as saints and fakirs extensively at all times of the seasons. Charas is not used in this part of the country. It is seldom used for children in sickness to make them drowsy or sleepy (only bhang).

31. Yes; the habit is easily formed by the company of smokers or drinkers. It is not difficult to break off the habit.

Yes; there is a tendency to develop the habit into the excessive.

32. There is not any custom, social or religious, for the consumption of any of the drugs in this part; but some superstitious people use it for smoking or drinking, as it was said that it was used by the great god Shiva. There is no custom or no account for it. Yes; it is likely to lead to the formation of the habit and the consequence is injurious.

36. There is not any reason to substitute alcohol for any of these drugs; on account of the dearness of the liquor a few people have taken to the use of these cheap intoxicants.

37. Charas is not used in this part of the country, and consequently I do not know the difference of effects in them. Yes; the effect of drinking bhang differs from smoking ganja. The effect of smoking is immediate on blood into the lungs, and hence to the heart, and directly then to the brain, but passes off soon. Whereas that from drinking bhang it acts on the general system and may last from an hour upwards to 12 hours or more.

39. The smoking of any preparation of the drug is generally more injurious than drinking or eating the same quantity. The smoking is a concentrative form, and whereas in drinking or eating it is much diluted with spices.

Reasons:—The effect of smoking is in the form of vapour and the absorption into the blood in the lungs is very rapid and immediately on the brain, causing tendency to produce intoxication with unconnected ideas and immediately forgotten, affecting general sensibility and furious delirium by its narcotic effects on the nerve centres and paralysis, ultimately insanity. While in drinking or eating the same or such preparations the constitution is not so soon affected, as the effect of the drug in this form refreshes constitution and passes off through the system; it has less tendency consequently towards insanity.

40. Occasionally the drug is used by native doctors for medicinal purposes, in dysentery, headache and colic. Yes; they are also used in cattle diseases.

41. The moderate use of the drug will be seldom beneficial.

(*a*) It may perhaps act as a food accessory but not digestive.

(*b*) Yes; it may.

(*c*) and (*d*) No.

42. Yes, very likely harmless; when it is used moderately and not repeatedly, it does not cause any mischief or disorder in the system.

44. It generally produces rather refreshing, cheerful activity, feeling of happiness and contentment, ideas of pleasing kind passing rapidly through the mind, tendency to talk, sing, laugh or dance, then giddiness and succession of unconnected ideas, and also intoxication. It does not allay hunger, but creates appetite. The effect of drinking lasts ordinarily about 6 to 12 hours, while in smoking one to two hours. After-effects, idleness or laziness, uneasiness or longing, loss of appetite, owing to the want of subsequent gratification.

45. The habitual moderate use of the drug in certain constitutions produces noxious effects, physical, mental or moral. Yes; it generally impairs constitution from frequent stimulation of nerve centres; the nervous tone of the system is lowered. Yes; it injures digestion and causes loss of appetite. Yes; it causes bronchitis and asthma, and not dysentery. Yes; it impairs the moral sense, produces laziness and not habits of immorality or debauchery. Yes; it deadens the intellect

in some cases, and produces insanity by smoking, but in drinking or eating it would not produce such harmful effects. It appears to me the predisposing cause of insanity, as well as exciting. It generally produces furious mania, dipsomania in the young, who have contracted the habit since a short duration and dementia affectata in aged, and generally temporary. The symptoms be reinduced generally by the use of the drug after liberation from restraint. Generally the typical symptoms are:—Ideas confused, incoherent, unfixed, unconnected talk, no recollection of time, place, quantity, etc., and forget what is seen or heard and told, manners silly, conversation incoherent.

Insanity, primary, never tends to indulgence of these drugs; but when the brain has been sufficiently weakened by the habitual use of the drug, intellect becoming deficient, the habit is more and more indulged in, which does ultimately lead to insanity. So the indulgence is primary, and insanity is the secondary or sequence of it.

Not having kept the accurate notes of the cases which would be worth while quoting, I regret I cannot give an account of such cases except two, since I took charge of this institution, both male sex, whose insanity was due to my knowledge to excessive indulgence in hemp drug smoking for some time past.

Names.	Caste.	Residence.	Occupation.
Bhimji Pepji	Hindoo, Koli	Mansa	Labourer.
Naiua Ghela	Do.	Maratha Do.	Do.

46. Habitual excessive use of any of these drugs would produce very noxious, physical, mental or moral effects, and that within a very short period of the indulgence, and the same effects and injuries, etc., stated in the last question within a very short period.

47. The habitual moderate use of the drug does not appear to be hereditary habit, nor it affects the children in any way.

48. The habitual excessive use of any of these drugs does not appear also the hereditary habit. I am not sure, but I conjecture that the children of habitual excessive consumers should be weak in body and perhaps in mind.

49. It is occasionally practised as an aphrodisiac by the male sex specially; and also it is seldom used by prostitutes; but I am informed that it is given as a sweetmeat by prostitutes to their paramours and *vice versâ*. Yes; I think the use for this purpose is more injurious than the use of ordinary narcotic, because there is more exhaustion of the muscular power and nerve centres during the act of sexual intercourse. Yes, it does tend to produce partial impotence indirectly.

50. It is never practised as an aphrodisiac in excessive use and nor used by prostitutes also, and it is much more injurious than other narcotic, as the consumer could not control on his body, the nerve centres getting paralysed, intoxication, furiously delirious and sometimes tingling and numbness of the whole body, and in severe cases general anæsthesia. It would produce general impotence.

56. When it is used in the form of mixtures it modifies more or less the effect. When mixed with dhatura it soon brings on an extraordinary intoxication within half an hour or so of a peculiar character. With opium it brings on narcotism; with nux vomica strong sexual excitement. I have not heard of its being mixed with cantharides or betel-nut. (*b*) When used in excess the effects are very harmful. It is used for personal consumption generally and occasionally for administration to others, perhaps with some objects, or to have excessive intoxication.

57. Ganja, charas are used in smoking so far I know in this part of the country, but charas is generally not in use this side.

In conclusion, in addition to what I have stated, I am of the opinion to lay before the Commission that those who indulged in the preparation of these drugs have generally no honour, and no one will like them or trust them in this part of the country, and the habit of these drugs would lead a man to commit serious consequences, as well as loss of health, sometimes intellectual power, and ultimately insanity. In my opinion the existence of hemp drug or preparations of the drug stated, is not at all advisable to use so generally and excessively, as the consequences are very serious and dangerous sometimes to human life from the statement made, and I think there should be legal restriction for it for the use of the public, except *bonâ fide* use for medicine.

Oral evidence.

Question 1.—I studied in the Poona Medical School and obtained Hospital Assistant's certificate. I have been in the service for twelve years. I have never been attached to any asylum.

I have taken ghota or bhang. I was not accustomed to it and took a large quantity for a beginner. It made me intoxicated. I took about a dram of powdered leaves with spices. I was under the influence of the drug for twelve hours. It made me refreshed and then stupid. After half an hour I felt a feeling of new spirit or refreshment and a tendency to talk. I felt giddy as I was walking, so I returned home. I was not insensible, but had a restless changing or confusion of ideas. I took it from courtesy, as it was offered by a friend who took it in the hot weather. I was able to walk and answer questions. I ate food, but not more than usual. I have no recollection of any diuretic effect. Next day I felt exhausted and slight headache. I took milk and tea and felt better. I did not observe any pupils next day. My vision was not affected, except that the lights or lamps seemed more in number. I was nervous and easily startled.

Question 39.—The "reasons" here stated are not based on my experience in treating cases. The whole statement is theory.

Question 45.—The constitutions affected injuriously by the moderate use of hemp drugs are nervous and weak constitutions. In small quantities the drugs would do no harm to a healthy person.

When I speak of the use of the drugs producing insanity, I mean the excessive use. I refer mainly to excessive smoking.

In the last seven months I have had the two cases quoted at the end of this answer. I have no record, however, to show how long they have been suffering. But I have seen them within the last two or three months. They are still in Mansa—one in the district, and one in the town. I have no notes except the out-door tickets on which I have entered the disease and treatment. I can give the history of no other case.

Bhimji Pepji was brought to me by some relations in a violent state one day, about three months ago. He was about 23 years old. I had never seen him before. The relatives gave me the history of smoking ganja for the last three or

four years. They said they had tried to stop him, but he went out and smoked. He smoked with bairagis. He was a cultivator. They said he had been mad two months continuously. I gave him some medicine. He was not brought again. I repeatedly made inquiry and have heard he is in the same state. He was under my observation for two or three hours. His relations told me that his insanity was due to ganja, and I found his conjunctivæ red. I did not notice the pupils. The man himself said he smoked. Again he denied it. I was told by his friends that he smoked five or six times in the day and two at night. His other habits were all right. He was a religious man; therefore he did not use liquor. His friends said so. His moral habits were not vicious. I inquired about whether his family drank, etc. But only one took opium. I made no inquiry about his family except whether they smoked. That was all I asked. Being reminded, I state that I also inquired about insanity and found no case of insanity in the family. I did not examine into the matter of dhatura. But I have been told that bairagis pretty often do use dhatura with ganja. I have seen two fakirs smoking it in a temple also. It did not occur to me to ask about this. The smoking of dhatura may produce effects, but the symptoms are quite different from those of ganja. I refer to smoking as well as taking internally. I saw two cases of smoking dhatura in my third year as a student. There were dilatation of pupils, attempting to catch imaginary objects, muscular exhaustion, great thirst, tendency to talk too much, and some symptoms of mania (unconnected talk). In Bhimji Pepji's case I am not sure whether I examined the pupils. I am not prepared to say that they were not dilated. His talk was incoherent. He was violent.

In Naina Ghela's case, the man was brought to the dispensary by his brothers. He was about twenty-eight or thirty. He was mad, silly. He lay down by the temple and beat the drum. I have seen him since more than once at the temple. I had never seen him before. His brothers told me he had been smoking for seven or eight years, and had been in this condition for a year and a half. I never noticed him till he came to the dispensary. He only came once to the dispensary. His brother came twice more for medicine and then ceased coming. I have seen the man several times since. He is in the same state.

He acquired the habit of smoking from his companions. They were low caste cultivators or coolies and mean servants. He was himself a cultivator. I did not inquire when he began to attend the temple. He does not cultivate now. He eats ganja and beats the temple drum when the time comes. I inquired about his family history and heard there was no one addicted to vice. He alone took to ganja. No one else was insane in his family. He may have taken liquor; some of his companions took bhang or ghota, but not alcohol. I do not know whether the men were vicious. I did not ask about this man's habits in that respect. I never saw this man violent.

The friends told me the cause of insanity was ganja. I believed them. It was natural for me to do so when several people told me. Although I believed them as to the cause, and although as belonging to a religious family he would not take liquor, yet I asked about liquor and opium. I made a very careful inquiry. His friends told me he took ganja and bhang, but no liquor or opium. I do not remember that I made any further inquiry as to cause. I believed in my mind that the cause was ganja. I asked also about family insanity. I made no full inquiry at the time; but I made inquiry on receiving these questions.

I do not think these symptoms would be due to alcohol. They could not, I think, be caused by alcohol. But it was natural for me to ask about liquor. The symptoms might have been caused by dhatura. I do not know about the pupils. There was no attempt at catching imaginary objects. The dhatura patient could not walk: this man could. This man had thirst and tendency to talk. The general type of insanity was dementia: in the dhatura cases I had symptoms of mania.

The type of hemp drug insanity is usually dementia, with generally the same symptoms. Violence, unconnected ideas, no recollection, congestion of the conjunctiva, dryness of tongue and throat. If I found these symptoms with a history of the use of hemp drugs, I should ascribe the insanity to hemp drugs.

I state that the type of hemp drug insanity is dementia from the study of Bhimji Pepji and Naina Ghela's cases, and also others which have come under my notice, but which I cannot detail. There is a tendency to rapid recovery. I devoted more time to inquiring as to cause than to trying to cure the men, because the people (though they came once) were superstitious and against English treatment.

---

87. *Evidence of* Hospital Assistant Phirozshaw D. Cooper, *Parsi, in charge Dispensary, Ilao.*

1. I am a medical officer in charge Ilao Dispensary for the last fourteen years, treating on an average 4,000 to 5,000 patients a year. The following facts are gathered from personal experience of hemp consumers.

2. Bhang is known in my district under three different names, namely, bhang, sabzi, and maya, the names patti and siddhi being quite unknown. Bhang is the name applied to leaves and seed capsules of female cultivated hemp plant.

The definitions of charas and ganja can be accepted for my district, and the same designations are current in my district. Ganja is also known here as "mal." Charas is not generally used here. Flat ganja is the most common variety known; round ganja is quite unknown, while broken ganja is occasionally used, and is known as chur.

19. Yes, only for smoking.

23. No, never.

28. (*a*) { Bhang, one pice. / Ganja, one pice.

(*b*) { Bhang, three pice. / Ganja, two annas.

Charas is not used.

29. (*a*) Bhang is ordinarily mixed with poppy seeds, black pepper, ginger dry, sugar or treacle, almonds, pistachios, fennel, rose water, and water.

(*b*) Dhatura is used under exceptional circumstances, probably with a view to increase its action.

Opium, nux vomica, cantharides or betel-nut is not known here to have been so used.

Ganja is (*a*) ordinarily smoked without any admixture, but is (*b*) exceptionally mixed with dhatura seeds, tobacco, and "garaku" (a mixture of tobacco and treacle).

I do not know of any preparation called bhang massala, but if it be identical with "bhang majum," the ingredients are as under:—bhang, ghi, milk, sugar, and cloves. In fact, it is a confection of bhang.

30. Moderate and excessive consumers both smoke or drink in company as much as in solitude. The extent of consumption varies in each case according to the constitution and length of the habit. Half a pint of bhang water may be enough for some, whereas others may require two to three bottles a day. In the same way, to some an inhalation of ganja may prove enough to satisfy his craving, to others it may require ten chillums to bring about the same effect.

It is strictly confined to the male sex, and chiefly to adult age. Children are never allowed to indulge in these drugs, but some foolish parents on some great festivals allow their children a gulp or two of bhang water.

31. Yes, the habit is easily formed and difficult to break off. Yes, there is a tendency to require ever-increasing doses to satisfy the craving.

32. It is customary amongst Hindus to use bhang on occasions of festivals and social gatherings, but it is neither essential nor compulsory. As for the religious uses of bhang, nothing is consumed by the votaries when offered at the shrine of Mahadev. But even in this case, it is not essential to use bhang only, as milk and curd do as well, and are, in fact, oftener used. It is also used on the religious festivals of Durga Puja. It is handed round like wine, and is freely partaken. It is not regarded as essential. As for its moderate and excessive use on these occasions, it much depends upon the moral and social status of the consumers, and on it depends the likelihood or unlikelihood of its habit being contracted, and the extent of injury it may cause.

36. Alcohol is to a very great extent displacing bhang as an ordinary drink of the people. The change is due to the greater facility of obtaining alcoholic drinks.

37. As stated before, the use of charas is not known in this district, hence inability to compare its effects with those of ganja and bhang. Answer to the latter portion of this question is given in reply to question No. 39.

39. Drinking of bhang is considered a better and a safer form of using hemp plant than smoking. Bhang drinking in moderate doses is considered refrigerating and stomachic. Smoking ganja affects brain sooner, and gets into the head quicker. Habitual and excessive use of ganja undoubtedly leads to insanity, some cases of the kind having come under my own personal observation.

40. Bhang is used by hakims and vaids for bronchitis and asthma.

41. Charas is not used in my district.

(*a*) Bhang in moderate doses is stomachic.

(*b*) It is said to alleviate fatigue and to give staying—power under severe exertion. In fact, it acts in the same way as cocoa does.

(*c*) It is considered a good preventive against malarial fevers, and is largely used by sadhus and sanyasis for this purpose. I have neverused it as a prophylactic against fevers.

42. Bhang in moderate doses is beneficial.

44. To the habitual moderate consumer, the effect is somewhat exhilarating. There is no intoxication. It is stomachic. The effect lasts from four to ten hours. There are no after-effects, but withholding any further supply produces general uneasiness, want of spirits, and pain in the limbs.

45. (*a*) Yes, it does.

(*b*) Yes.

(*c*) It causes loss of appetite.

(*d*) Ganja causes bronchitis and occasionally asthma.

(*e*) It induces laziness. It is used by sadhus and sanyasis to induce impotency in order that they may be better able to approach their "Maker."

(*f*) Yes; ganja has a tendency to produce insanity. It acts both as a predisposing and exciting cause in different cases. It generally causes temporary insanity of an active kind.

46. It is obvious from my reply to question No. 45 that habitual excessive use of any of these drugs produces more harmful effects.

47. It is not at all a hereditary habit, and does not seem to have any effect on the offsprings of moderate consumers.

48. Excessive use of any of these drugs does not produce hereditary habits in the children of the consumers. But as the excessive consumers become weak in mind and body through its use, their issues naturally come out weak in mind and body as well.

49. Yes; they are used in combination with other substances for aphrodisiac purposes. Do not know about prostitutes. Yes; it has an invariable tendency to produce impotence after long continued use.

50. Its excessive use acts in its first stage of commencement as an aphrodisiac; but in a few days, besides causing impotence sooner, it knocks down the general health.

56. Admixture of dhatura seeds intensifies the effect of the drugs.

57. Here we don't know of charas. Ganja is only used for smoking.

Oral evidence.

Question 1.—I studied at the Grant Medical College and received the diploma of Hospital Assistant.

Question 36.—My answer is based on experience gained in the towns of Hansot, Olpad and Aubleshwar in the Broach district. I made special enquiries in these places and my answer refers to those alone. The change of habit I describe is taking place among the low class Muhammadans and Hindus. The liquor which is taking the place of bhang is mhowra spirit.

Question 45.—I have personal experience of one case of insanity which occurred three or four

months ago and came to the Ilao Dispensary. I remember a case of lunacy occurring fifteen years ago in the 20th Bombay Infantry at Baroda. I know no other cases. The Ilao case was of a temporary kind. I did not see the other case to its end, for the man was in hospital when I was transferred. I attribute the Ilao case to the excessive use of ganja. I know of no case in which moderate use has caused insanity. The Baroda case was under my observation for 1½ months. The Ilao patient was brought to the dispensary by his relatives. He was talking nonsense and his relations said that he had become insane since he had taken the drug to excess. I did ask how long he had been in the habit of smoking and was told that he had begun a few months before. He had taken an excessive dose of ganja after drinking liquor two days before he was brought to me. He was in the habit of taking liquor. He would do so at festivals. All poor men drink. On the occasion when he was overcome he had taken liquor to excess and ganja to excess also. He was of the Talavia caste. I don't know whether he took either liquor or ganja in excess before that occasion. I attribute the case to ganja because he smoked that drug immediately before he became incoherent. I don't know if any of his companions suffered on the same occasion. He was not cured for 1½ months during which he was brought to my dispensary by his relations every third or fourth day. The last time I saw him he was improving. I made no further enquiry, but accepted the account given by his relations.

88. *Evidence of* Hospital Assistant Shaik Surfraz Hakim, *Nasik.*

1. I have been at many places in the Bombay Presidency, and specially at Yeola, Chikodi, Sholapur and Nasik for long time, where ganja and bhang consumers were under my observation and treatment.

2. These drugs are known by the same name in this presidency also.

19. Ganja and charas are used for smoking. Powdered ganja is mixed in sweetmeat to make it little intoxicating. It is also mixed in bhajias, which are fried and then eaten as luxuries. Majum also contains ganja or bhang.

23. As far as I know, bhang is not generally used for smoking.

28. (*a*) It is said that the average allowances of ganja is half an ounce in weight, and half an anna worth.

(*b*) Ditto 3 ounces in weight, and of 3½ annas worth.

(*a*) Bhang is used daily by habitual moderate consumers half an ounce in weight, costing half anna.

(*b*) Ditto by habitual excessive consumer, one ounce in weight, costing 1 anna.

29. Tobacco is ordinarily mixed with ganja; dhatura, opium and nux vomica are also mixed with ganja to make the effect more powerful by a few excessive ganja smokers, and especially by ascetics. I have not heard or seen cantharides and betel-nut so used. The following are the ingredients of bhang massala:—poppy seed, almond seeds, anise fruit, sugar, milk, black pepper, cardamoms, seeds of cucumber.

30. It is said that habitual moderate smokers of ganja will require the same quantity, as stated in answer to No. 28, either in solitude or in company. Ganja and bhang are also used by female sex. It is unusual for children to consume any of these drugs.

31. The habit of consuming these drugs is not easily formed, and it is not very difficult to break it off.

32. On Hindu holidays, and especially on Shivaratra, bhang is taken by some as a beverage mixed with its massala in devotion to the god Shiva.

36. No.

37. It is said that charas smoking has more intoxicating effect than ganja smoking; but the effect is produced instantaneously by both. The drinking of bhang produces effect slowly.

39. The general effects of the drugs on the constitution is the same. They are not injurious if used moderately. Their excessive use has supposed tendency towards producing insanity.

40. Ganja and bhang are used as sedative, anodyne, and as digestive, and also as local application to piles, etc. Bhang is given to cattle to promote appetite.

41. (*a*) and (*b*) Yes.

(*c*) I have not seen it used as a febrifuge; but it is said that it prevents disease in malarious and unhealthy tracts.

42. Beneficial.

44. It is refreshing, and it creates appetite. These drugs produce intoxication when used excessively. Moderate use allays hunger for a time. The effect lasts from two to four hours.

45. (*a*) to (*e*) No.

(*f*) The excessive use of ganja acts as an exciting cause of the insanity, and it generally produces mania, temporary and permanent both.

46. The excessive use of these drugs is injurious; it tends to produce insanity, impairs constitution and digestion.

47 and 48. No.

49 and 50. Moderate use of these drugs is practised an as aphrodisiac. By few prostitutes it is used for this purpose. The use for this purpose is injurious when these drugs are used largely and continuously for long time. The excessive and protracted use of hemp tends to produce impotency.

56. Dhatura, opium and nux vomica are mixed with ganja to make its effect more powerful, and these things are used by those people who use ganja excessively.

57. Ganja and bhang are eaten and drunk. Their excessive use produces intoxication and delirium.

89. *Evidence of* Hospital Assistant Purson Singh Chattry, *Sholapur.*

1. I am an Hospital Assistant serving in the Civil Medical Branch for nearly twenty-five years. I have served in Gujarat, Sind, and have had good association with the Punjabis in whom the use of this drug is general.

2. The same names are given here, and two kinds, namely, bhang and ganja, are sold here. One more form of bhang is sold and consumed in the form of sweetmeat (confection) called majum or yakuti. The bhang is mixed with several of the medicated confections called pak.

19. Yes.

23. No.

28.

	Bhang, up to tola.	Ganja, up to tola.
Habitual moderate consumer	½	1
„ excessive „	3	6

Charas is not sold in this district. The cost is varied according to the district.

29. Ordinarily tobacco is mixed with ganja and charas for smoking. Bhang is ordinarily mixed with spices, milk, sugar, and water. Exceptionally dhatura is added.

I know one form of massala in the preparation of bhang called panch ratni, consisting of aconite, arsenic, dhatura, opium and bhang, sweetened with sugar, etc. The object of this admixture is to heighten the excitement.

30. Ganja and charas are smoked to a great extent in solitude, and moderately in company. Bhang is much drunk in company, and moderately in solitude. Ganja is chiefly used by males; but I have seen a few females smoke charas, as is smoked by males only. Bhang is drunk by males, females, and children. The custom is much prevalent in Sind and Punjab. In Sind I have seen it administered to infants also.

31. The habit is easily formed and goes very hard to break off. A moderate use of all these three preparations has a tendency to develop into excess.

32. There is not any distinct ceremony ordering these preparations to use as essential; but on the Maha Shivaratri day of Shankar it is a custom with a limited sect of the community to drink bhang, which is also called ghota. Some of the disciples of sadhus smoke ganja and drink bhang, as a Pershad of Shankar, and get into the habit of the preparations which is injurious.

36. I do not know for the present whether alcohol is consumed instead of ganja, etc.

37. I think the effects of ganja and charas smoking are the same, charas being stronger. Bhang drinking is milder than either of them.

39. The smoking of ganja and charas is more injurious than drinking bhang. It causes continuous irritation in the respiratory passages, resulting into chronic bronchitis and asthma. It acts also on the nervous system as an excitant, but this action may prove a little beneficial to the system; but after some time by continuous excitement, the nervous system is exhausted, the mind gets delusive and terminates into insanity. This occurs early in those who cannot afford to supply their system with the proper nourishment.

40. Yes; more in Sind and Punjab by hakims and vaidyas. The bhang is used in cattle diseases.

41. (*a*) I have observed cases of children in whom the use of fried bhang has assisted digestion.

(*b*) The smoking of ganja and charas give a temporary tone to the nervous system, to allay fatigue and over-exertion; but they lose more in its after-effects; so the loss is more than gain.

(*c*) No febrifuge and anti-malarious property is noticed by me.

42. Except bhang in medicinal doses in cases of children as digestive, all other preparations not only do not act beneficially but prove injurious, because if indulged in for a long time, it depresses appetite and strength, weakens nervous system, followed by general debility.

44. The immediate effect on the moderate habitual consumer is primarily refreshing and pleasing by temporary stimulation of the nervous system. Its secondary effect is intoxication, followed by languid uneasiness and depression, when the time comes for another dose to get refreshed. All these effects are more severely produced in the case of habitual excessive consumer. The drug has no effect in allaying hunger.

45. (*a*) Produces weakness and loss of flesh, intellect dull, and volition impaired and morally weak.

(*b*) It does.

(*c*) Yes, after some time.

(*d*) It causes chronic bronchitis and asthma, but cures dysentery.

(*e*) Yes.

(*f*) It deadens the intellect and may produce insanity. The causes in my cases were exciting. It produced insanity of a temporary type. The symptoms were reinduced after liberation from restraint. The insanity by great talkativeness and running amuck. I have no instance in which an insane without ganja history has confessed to the use of the drug.

(*g*) I am of opinion that the insanity produced in my cases had no previous connection with mental anxiety or brain disease. I am not aware of any instance of insanity which has a tendency towards indulging in hemp drugs.

Case.—Mr. V, a weaving master in one of the mufassal cotton mills, pay Rs. 150, got into the habit of smoking ganja in bad company. After a few days he began to get hallucinations and became unfit for work, terminating in insanity. The chief symptoms were talkativeness, sleeplessness, and great craving for ganja. He was under great restraint for two months, and treated commonly with bromides, etc., and got cured. He was quite right for 12 months, after which time he again took to smoking ganja and again became insane. The same treatment was adopted, and got cured and sent to duty. This was the third time he got insane by the same cause. After recovery he did not attribute his ganja smoking to any anxiety of mind, and his employers have a very good opinion about his hardworking.

There is no trace of brain disease.

46. Same as discussed in column 45, but more severely.

47. The habit is not hereditary. The children of these consumers are nervous, weak in stamina, and prone to convulsions and hydrocephalus.

48. The habit is not hereditary. The children of the excessive consumers are more nervous, more weak in stamina, and more prone to convulsions and hydrocephalus.

49. It is used as an aphrodisiac; but I have no information to answer on other points.

50. As stated in column 49.

56. Both in moderation and excess the admixture of other substances is made use for heightening the effects.

57. I have no instances of ganja and charas ever being eaten or drunk.

In conclusion I think if the Government prohibit the cultivation and sale of hemp and its preparations, the people who have caught the habit of these drugs may begin to use alcohol, which will be a bad substitute. The hemp drug and its preparations are in no way beneficial, but injurious to the system, even in moderation, which is almost impossible to keep. I fear alcohol is sure to come in substitution, and prefer to keep the matter as it is. Victims of these preparations want something to quench their thirst, and they must use anything that they may come across. They cannot control their minds, as the will power is already lost in these cases.

Oral evidence.

Question 1.—I studied in the Grant Medical College and took the Vernacular Class Hospital Assistant Diploma in 1873. It is a three-years' course. I attended lectures by the Native Professors: the lectures were given in the vernacular. I enlisted as Medical pupil in 1868.

Question 45.—I have had more than one case of insanity, due, as I believe, to hemp drugs; but I cannot give properly information about them as they occurred long ago in my practice. I have therefore chosen the case of Mr. V., a native gentleman whom I know. It was three years ago I first knew him. He was then 37 or 38 years old. He is married and has children. I had not known him before. He was brought to me from Jalgaon by a friend for treatment as an out-patient at Sholapur. His eyes were red. He was very talkative, with tendency to violence, sleeplessness. He was able to answer questions, but was incoherent at times. His friends told me he had the habit of smoking ganja, and that when he smoked too much he got in this state. They said he had smoked for one year. I told his friend not to give him ganja and to have him watched by two private watchmen. He got no ganja for two months and was then quite cured. He then returned to Jalgaon. When he was cured, he told me that he had taken to smoking ganja with bad company of men serving under him in the mill. He confessed to no other bad habit.

A year afterwards he was brought back in the same condition. He was ill then for about a month-and-a-half, staying with the same friend at Sholapur. I saw him constantly. He was cured. He told me he had had a cough, and was advised to take ganja for it. He had done so, and so got into the habit again.

The first time I had him under observation he told me that he had smoked ganja for one year and had become insane, and had been treated by the Civil Surgeon. That was about a year before I saw him for the first time. He was thus insane three times: once treated by the Civil Surgeon and twice afterwards by me. My knowledge of the man is confined to the two occasions on which I was treating him. I do not know his family. I asked the friends and the patient whether there was any tendency to insanity in his father or mother, or any history of syphilis; and the answer was negative. That was all I asked them. I think I asked about other habits, such as drinking. That is all. And, of course, I knew nothing about him except what I was told. I did not ask any question about "anxiety." I have mentioned that, because it comes in the question of the Commission. The man said nothing about anxiety; but he was not asked. He was asked whether he had any quarrels. I did not ask about quarrels: my question was "Have there been any family troubles?" I have no notes of the case apart from the ordinary dispensary notes of out-door cases. This would show "symptoms" and "prescriptions" in the quarter sheet. It is kept in hospital. The entries are of the briefest character.

Mr. V. was an out-patient. Those who brought him said to me he had been treated for the same cause by the Civil Surgeon. So I had no doubt about the cause. There are no typical symptoms. Diagnosis cannot be made without history.

Question 40.—The hakims and vaidyas use the drugs as a stimulant in tonic confections. They sometimes also prescribe ganja for cough.

Question 47.—This condition of the children is due to nervous weakness of the parents. I know a few cases. I have never had the parents under observation, but have had history of their using ganja. I have had children with similar symptoms whose parents did not use ganja. I have associated these symptoms with the use of hemp by the parents since I went to Sind seven or eight years ago. In Sind nearly every one uses bhang. The Sind climate is very severe—great extremes. I found many cases in Sind of such weakness in children. I have found cases here—a few—but none traceable to hemp. Mr. V.'s children are all right.

In conclusion hemp drugs in my opinion cause less harm than alcohol. It causes insanity more than they do and more hereditary weakness.

---

90. *Evidence of* Rao Bahadur Vishram Ramji Gholkay, *Retired Honorary Assistant Surgeon, and Medical Practitioner, Poona City.*

Ganja, charas, bhang, and the other preparations of ganja are used for the purposes of procuring intoxication and as medicines.

The vicious persons from all classes of people, especially the mendicants, bairagis, gosavis, purdasis, watchmen, etc., use the drug.

Charas is rarely used in this part of India, because it is not prepared in this part of the country.

Ganja (dried flowering tops) and charas (a resinous exudation from the plant) are smoked; bhang (dried leaves) is drunk in the shape of subji. Yakuti, shrikhand and gulkand, which are prepared from bhang, are eaten.

I don't think any particular class has any preferential liking as to any particular mode of using it. Some smoke it, some use it as a beverage, and others eat it in the shape of sweetmeat, such as majum, yakuti, etc., etc., just to suit their individual taste and convenience.

Bhang is not smoked.

The use of these narcotics does not seem to be on the increase in this district.

Vicious habits of life, bad associations, imitations, urban life, indolence, want of other accustomed stimuli, etc., lead to the use of the drug.

Minimum cost is a pice or two per diem for the habitual moderate consumer, and from 2 to 6 annas is the maximum cost for an habitual excessive consumer.

I don't believe dhatura is ever mixed with it to enhance its effects.

The male sex generally use the drug. A few females also use it. It is not given to children, especially in this part of the country.

The habit is easily formed and when once formed, it is very difficult to leave it off.

I don't think it feasible to prohibit the use of the drug. Moral instructions may have a prohibitive effect.

Ganja smoker is generally quiet, while a drunkard is very boisterous, mischievous and smells of the liquor.

Both are injurious to the health in like degree.

I believe both the smoking and eating of the drug are injurious.

The drug is used medicinally both by native and European practitioners. It is used also in cattle diseases.

The moderate use of the drug when used medicinally does have a beneficial effect, but as a habit it is not beneficial.

(*a*) Ganja increases appetite, and aids digestion to a certain extent when used medicinally.

(*b*) It does have some staying-power under severe exertion. It may have prohibitive effect against exposure.

(*c*) I don't think it is a prophylactic against malaria.

(*d*) It is only good as a medicine.

I consider even its moderate use is harmful, as it affects the brain and by degrees leads to its excessive use.

The moderate consumers are generally inoffensive to their neighbours.

The immediate effect of its moderate use is intoxicating, exhilarating and refreshing. It excites hunger. Its after-effects are laziness, erratic habits, mental aberration and cough.

It does produce dry cough eventuating in bronchitis, asthma, but it does not seem to produce dysentery so far as my experience goes. Its long continued use diminishes the quantity of blood in the system, that it produces anæmia. It does impair moral sense, induce laziness, and leads to habits of debauchery. It does produce insanity of a permanent character to an appreciable extent.

I have no data to say that the habit is inherited.

It is used as an aphrodisiac. It does not seem to produce impotency, but a long continued and excessive use is likely to bring on impotence. Some prostitutes use it.

Bad livers do use the drug, but its moderate use is not likely to lead to crime.

To my knowledge the use of the drug has not produced, in any case, homicidal frenzy.

---

91. *Evidence of* Ganesh Krishna Garde, * *Brahmin, Medical Practitioner, Poona City.*

1. A medical practice extended over a period of fifteen years and a special study of the subject from botanical, pharmaceutical, physiological and sanitary points of view have afforded me many opportunities of obtaining the necessary information.

2. Yes, the same names are applied to these products in this province.

3. In many districts of this presidency the hemp plant is occasionally found growing spontaneously, but not abundantly.

4. The female plant (called erroneously *nar* or male by people) is known as ganja, and the male plant (very rarely found wild and never cultivated in this province, and erroneously termed *madi* or female) is called bhange-che-jhad. These names always refer to the same plant.

5. Wild hemp is known to grow in all temperate and tropical regions with a moderate rainfall and from the level of the sea up to an elevation of 10,000 feet.

6. Scattered in this province.

7. It is cultivated chiefly in Khandesh, Ahmednagar and Sholapur districts of this presidency, and to a very small extent in Poona, Satara, Surat, Broach and Nasik districts for the production of ganja only.

8. Recently there has been a considerable decrease in the area under hemp cultivation on account of great restrictions placed on the cultivation, preparation, and sale of the drug by Government.

9. The soil selected for the purpose is a light sandy loam or rich black soil free from the shade of large trees. It is ploughed eight or ten times in April, and after thus freeing it from all weeds it is manured with cowdung. After setting in of the rains the ploughing is again repeated and the soil thrown into ridges a foot high, the furrows being a foot in breadth. The seedlings, which are reared for the purpose in a nursery, are transplanted on the ridges prepared for their reception six or eight inches apart from each other. The preparation of the nursery generally commences at the end of May after the first shower of rain, and by the end of September the seedlings are six or twelve inches high and are then ready for transplantation. About four or five seers of seed are necessary for every bigha of land to be cultivated with hemp. The plants are trimmed in November. This operation consists in lopping off the lower

* Was deputed as a delegate by the Poona Sarvajanik Sabha.

branches so as to favour the upward growth of the shoots. The ridges are again redressed and manured, the furrows ploughed and all weeds removed. At this stage the plants begin to form their flowers when the services of an expert are called in for cutting down all the male plants colloquially known as *madi* (female). This operation is most essential for he production of ganja, for the presence of a single male plant in the field is sufficient to fertilize all the plants in the field, and the ganja yielded by them is then very inferior and scarcely saleable.

10. No; the cultivators of hemp are of the same classes as other agricultural cultivators.

13. Almost restricted to Khandesh, Ahmednagar and Sholapur districts. These were selected on account of the rich black soil free from shade, dry sunny climate, and moderate rainfall. Ganja is cultivated in other districts to a small extent. Ganja can be only produced on the plains of tropical India with a moderate amount of rainfall, and a dry sunny climate from sea-level up to an elevation of about 4,000 feet, the soil being a light sandy loam, rich black or greyish white.

14. Out of these three, only ganja is prepared in this province especially in Ahmednagar, Sholapur, and Khandesh districts, and to a small extent in Broach, Surat, Poona, and Satara districts.

16. Bhang is not generally prepared by the people in their houses in this part of the presidency. It is said to be prepared from wild hemp in Central and North-Western Provinces, the Punjab, Madras and Bengal, and also from the cultivated plant in some parts of these presidencies. It can be prepared from the hemp plant wherever grown, although the narcotic principle is not developed to the same extent everywhere; ganja and charas are not known to be prepared from the wild plant wherever grown.

17. In this province the preparation of ganja is not restricted to any particular classes, but in Bengal the majority of the cultivators are said to be Muhammadans. With regard to the other two preparations I am not definitely informed.

18. Yes; all of them deteriorate by keeping. They lose a good deal of their effect in time. With ordinary care they keep good for two years. The causes of deterioration seem to be decomposition of the resinous principle and evaporation of the volatile oil which is said to be one of the active ingredients of ganja and bhang. I think deterioration can be prevented by keeping the drugs well protected from air and moisture. It is probable that charas being the active principle of the plant may keep longer than either bhang or ganja.

19. Ganja and charas are used only for smoking in Northern India; but in this province, and probably in many other parts of Southern India, ganja is also taken internally in the form of majum, yakuti, shrikhand and gulkand, and as a drink called "ghota," which here takes the place of a similar preparation of bhang used in Northern India. The mode of preparing these forms of hemp confectionery in this province is as follows:— ganja (in Northern India bhang) is boiled with ghee over water for a few hours, when the ghee gets medicated with the resinous active principle of the drug, which is freely soluble in oily and fatty substances. The medicated ghee which floats on the water in the form of a green jelly is then separated from the decoction and kept for use in suitable vessels. A portion of this is added with spices to syrup over a fire producing a paste which readily hardens into a solid mass when cooled, and is then cut into small lozenges. These are called majum. Yakuti is made from the ganja ghee in a similar way, with this difference that it is milder than majum and contains saffron, which gives it its peculiar colour. The same ghee mixed with confection of roses forms gulkand, which is the mildest of all the hemp confectionery. Added to molasses or jagri it forms shrikhand, which is the strongest of the series. These preparations are generally resorted to as aphrodisiacs by persons addicted to sensual pleasures and occasionally by those suffering from diarrhœa, indigestion or some painful complaint. Each lozenge of majum or yakuti weighs about half a tola, and costs a quarter of an anna. The dose for a moderate consumer is one or two such lozenges, and for immoderate consumer three or four lozenges. As bhang is not procurable here, a substitute for it (and a dangerous one it is) is found in broken ganja or "chur," which is sold for bhang and is used as such in preparing the drink by a majority of those who wish to have recourse to it. Some people know that it is not bhang proper, and being aware of its virulence are careful never to use it for a drink. Both the confectionery and the drink are only used by a small portion of the population of large cities and very rarely by people living in the smaller towns or villages.

20. Charas is hardly known by people of this presidency except the town of Bombay. It is smoked in Bengal, the Punjab, and North-Western and Central Provinces. Ganja alone is resorted to for smoking in this province, and that too by an insignificant portion of the population. Ganja smoking is not confined to any particular class, although the proportion is greater among the lower classes than the higher. It is prevalent among the working people in the various trades of large cities (goldsmiths, blacksmiths, carpenters, etc.), the indolent and the idle and the wandering fakirs, gosavis and bairagis. In this district, with a population of 1,067,800, about 300 maunds are consumed annually, nearly one-half of it being consumed in the town of Poona including cantonment. Taking half a tola as the average daily consumption of a smoker, we get 5,333 ganja smokers in the whole district, nearly one-half of this being residents of the town of Poona with cantonment. This gives an average of about ½ per cent as the proportion of ganja smokers to the entire population of the district and nearly 1·7 per cent. for the town of Poona. In Northern India, especially in Bengal, the proportion of ganja and charas smokers to the entire population is far greater than the above. The annual consumption of ganja alone in Bengal is stated to be 500,000 lb. (Journal of E. I. Assoc., May 1893). The population of Bengal is 71,346,987, and calculating in the same way as above we get ·15 per cent as the proportion of ganja smokers to the whole population. The proportion of ganja smokers in this presidency (Bombay) is by a similar calculation ·33 per cent.

21. In this province preference is shown for either flat or round ganja, the "chur" being looked upon as comparatively worthless. In Bengal round ganja is said to be preferred to flat by some and by others flat is preferred to round, the chur being equally rejected by both.

22. Foreign charas chiefly comes from Yarkand and Herat, and it is preferred to native charas.

23. Some books say that bhang is used for smoking in some parts of India occasionally.

But Mr. Hem Chandra Kerr believes the statement to be incorrect.

24. In Northern India bhang is eaten in the form of a powder or confection by people addicted to sensual pleasures and taken as a beverage by all classes of people especially by the Sikhs in the Punjab and by a very large proportion of the population in the North-Western Provinces. Its use is said to be on a decrease in Bengal. It is also used both in eating and drinking in Central Provinces to a considerable extent. In Southern India it is very rarely used, the "chur" being generally substituted for it. The proportion however of bhang-drinkers (whether they use chur or bhang) to the entire population in Southern India is extremely insignificant, and the number, small as it is, is almost confined to a few large cities in this presidency only. Here, as well as in Northern India, bhang drinking is not looked upon so disreputable as ganja or charas smoking and so it finds favour with higher classes.

25. It would appear from Government reports that the area of hemp cultivation for the production of ganja is everywhere on a decrease during the last decade as compared with the previous years. In Bengal the successive increases of duty since 1864 have resulted in reducing the consumption of ganja by 27 per cent., notwithstanding the increase of population since that year. The same may be said to be the case here. Besides Government restriction by increased duty, another reason why ganja smoking shows a tendency to decrease is to be found in the fact that liquor is taking its place. Alcohol seems to attract people with intoxicating tendencies more than ganja. A reference to the reports of the Abkari Department conclusively proves this by showing that there is every year an enormous increase in the revenue realised from toddy and country liquors.

27. Ganja and charas smokers are found generally among the lower classes, and bhang drinkers among all classes. The habits of life or circumstances which mainly lead to the practice may be summed up in the following few words :— love of intoxication, fashion of imitation, want of education, a wearied brain and body in the artisans and working classes, want of food and clothing and a desire for austerities among the nomadic bairagis, gosavis and fakirs, the enervating and depressing effect of the parching sun in Northern India, and a desire for aphrodisiacs among people addicted to sensual pleasures: all these, either separately or combined, lead people to resort to these narcotics.

28. The allowance and cost of ganja per diem are—

(*a*) Half a tola and half an anna.

(*b*) Four tolas and four annas.

For charas—

(*a*) half a drachm.

(*b*) Two drachms.

For bhang—

(*a*) Half a tola and ¼ of an anna.

(*b*) Five tolas and ¾ of an anna.

29. Charas is smoked, mixed with prepared tobacco (a mixture of tobacco and molasses). Ganja is smoked with tobacco. The object in both cases seems to be to dilute the charas or ganja with a *non-narcotic* stuff. Dhatura is said sometimes (exceptionally) to be mixed with majum; so also nux vomica, with the object of increasing the narcotic and aphrodisiac property of the hemp. Bhang is mixed ordinarily with black pepper, anise seeds, and a little sugar in preparing a common beverage, the object being to correct the nauseating tendency of the drug; and occasionally with dry rose petals, cardamom seeds, almond paste and milk; the object being to make it more pleasant and agreeable. The spices generally mixed with the bhang in the confectionery called majum, yakuti, etc., are cardamoms, nutmegs, cloves, saffron, etc. I know of no such preparation as "a bhang massala" being sold for the purpose of being mixed with any of these drugs.

30. To a greater extent in company than in solitude. Yes, mainly confined to the male sex and adult life. It is not usual for children to consume any of these drugs. But bhang is occasionally given to children in Northern India.

31. Yes, the habit is easily formed but difficult to break off. Yes, there is such a tendency.

32. It is customary in some parts of India to drink bhang on the holiday called Shivaratra, as the drug is thought to be favourite with the god Shiva or Mahadeva. This use of the drug, however, is not looked upon as essential, the custom being not deeply rooted nor having any religious aspect in it. In Bengal, on the last day of the Durga Puja, it is customary to drink bhang. The use of this drug on either of these occasions is not generally excessive, nor is it likely to lead to the formation of the habit, nor otherwise injurious.

33. Smoking of ganja or charas is generally regarded by higher and middle classes as disreputable, this sentiment being attributable to the deleterious effects of the drug on mind and body. In public opinion the practice is regarded as a vice except in ascetics, mendicants, fakirs, bairagis, and gosavis, who are supposed to have recourse to it in order to aid them in their religious austerities. Drinking bhang has become so general even among the higher and middle classes in the Punjab and North-Western Provinces, and to some extent in Bengal and Central Provinces, that no such feelings of disrepute are entertained against that habit.

34. Yes, it would be a serious privation to the habitual consumers among fakirs, gosavis and the labouring classes to forego the consumption of the drug they use. Because they will thereby lose their means of destroying the sensation of fatigue and protecting them from the effects of exposure and heat.

35. It may be feasible to prohibit to a great extent the use of ganja and charas by stopping the cultivation or importation, but it would not be feasible to prohibit the use of bhang, which is not generally obtained from the cultivated but from the wild plaint. The drug, especially bhang and ganja, may be consumed illicitly, as it is possible for anybody to grow a plant in some corner of his compound free from detection. It would be rather difficult to enforce the prohibition. The prohibition will certainly occasion discontent among the consumers, but it would not be so serious as to amount to a political danger. The prohibition is sure to be followed by recourse to alcoholic stimulants or perhaps in a few cases to opium. Just now, even without any such prohibition, there are, as I have incidentally remarked above, signs of people showing a preference to alcoholic stimulants. To prohibit the use of these drugs would therefore be aiding this tendency. If we throw a glance at the history of the introduction of opium into India and China, the

same conclusion will be forced upon our mind. We know from the history of cultured plants that the poppy plant is not a native of India and that its intoxicant juice was not known here or in China before the 10th century A. C. It further tells us that the Arabians first brought it from Greece, its native place, and cultivated it in Turkey in Asia, and that from thence the followers of Islam introduced it into the eastern countries. It spread along with their religion and soon became acclimatised in India. The Muhammadans cherished it exceedingly, because in it they found a good substitute for alcohol, the use of which was forbidden to them by their religion. It found favour with the Chinese for a similar reason, for their new religion Budhism more than even Muhammadanism condemned the use of alcohol. It was under these circumstances that the Chinese came to be possessed of that unsurpassed love for opium for which they are well known. We thus see that the prohibition of alcohol by religion among the Chinese and the followers of Islam was followed by recourse to opium in these two nations. Legislation, like the commands of religion, may prohibit the use of a particular intoxicant but it cannot destroy the passion for intoxicants, and consequently the prohibition of one kind of intoxicant always leads men to resort to another.

36. Yes; the reply to this question has been anticipated in the foregoing remarks. This change in the appetite of intoxication is partly at least the result of the fashion of imitation.

37. The intoxication of charas is more instantaneous but less lasting than that produced by ganja. Its use is said to be less injurious than that of ganja. It is said also that its want never causes any longing or uneasiness.

38. If there be any difference at all, it must be one of degree and not in kind. Round ganja is said to contain more resin than the flat variety (if I may use the term), while the "chur" derived from it during the process of manufacture and packing is said to be, when recent, more powerful than the other two forms. It however soon gets deteriorated by keeping and hence is generally rejected by good smokers.

39. Taking the same preparation and the same dose, smoking may be said to be less injurious than eating or drinking, for the simple reason that a portion of the active principle is burnt up and decomposed before it reaches the blood. But if the effects of smoking one preparation in a particular dose be compared with the effects of drinking or eating any other preparation in a different dose, the result will vary according to the preparation and the dose. By way of illustrating the first statement, I might say that the effects of smoking a drachm of ganja are less injurious than the effect of eating or drinking the same quantity of it, and so also with charas and bhang. To render the second statement more definite and complete, I might say that the dose being the same, the effects of smoking ganja and charas are worse than the effects of eating or drinking bhang, and that quite the reverse will be the case if we compare the effects of smoking a small dose, say about 10 grains, of ganja or charas with the effects of drinking or eating a large quantity, say an ounce of bhang.

40. Bhang is prescribed medicinally by many native doctors, and both bhang and ganja are used in the treatment of cattle disease. Ganja is also prescribed by native doctors but not for internal use, but only as a fumigation to piles and inhalation in asthma. In connection with the use of hemp drugs by native doctors it would not be out of place if I say a few words regarding the history of the narcotic and when it came to be introduced into native medicine. I think it the more important to do so, because there seems to prevail a mistaken notionab out this subject. I find it mentioned by Mr. Hem Chunder Kerr, for instance, in his report on ganja in 1877, that the narcotic property of the hemp plant was known in India as early as 3,000 years ago. He cites some authorities from the Atharva Veda to fortify his statement. Led by his statement, perhaps, the Government of India in their letter to the Secretary of State for India dated the 9th August 1892 observe: "In India, on the other hand, the practice of ganja-smoking has existed from time immemorial, etc." A similar account is given by Dr. Watt in his "Dictionary of the Economic Products of India", under article *Cannabis sativa*. I have studied the question from a historical point of view, and after a careful research made in that direction by referring to the ancient medical literature of India and to such Vedic and post-Vedic passages as seem to refer to the plant, I have arrived at the conclusion that the narcotic properties and preparations of hemp, as they are understood to-day, were not known in India until a very recent date; that whatever interpretation be put on the words bhanga or bhangâ mentioned in the earlier works from the Atharva Veda down to the institutes of Manu, or the Ayurveda of Sushrut, one thing is certain, that even if the word did really refer to the true hemp plant, the latter was only cultivated for its fibre; charas and ganja were not known at all, and the hemp plant that was cultivated did not yield bhang, the narcotic principle developed in its leaves and capsules being too scanty to be noticed by the people as it is in the hemp plant of Europe to-day. The facts upon which I have based this conclusion are as follows:—

(1) The most ancient medical works in Sanskrit; Charak, Sushrut and Vagbhat, do not make any allusion to it either as a medicine or as a poison. This is the more remarkable when we see, that even its cognate poison dhatura, is mentioned by Sashrut in the treatment of hydrophobia and by Vagbhat among narcotic poisons. Mr. Hem Chandra Kerr says that in Sushrut "the plant is described as a medicine for the accumulation of phlegm in the larynx and for some other diseases." But this is incorrect, for no such word occurs in Sushrut as a medicine for accumulation of phlegm in the larynx. The only place where the word bhanga is mentioned is in the treatment of ophthalmia, and there from the context it is doubtful if the reading is correct. For most probably the correct reading here is bhringa and not bhang, the former being a small annual weed of the compositæ (*Eclipta prostrata* of Graham) very frequently occurring in prescriptions for eye-diseases. Such misprints as 'bhang' for 'bring' are of very frequent occurrence in Calcutta editions of Sanskrit books. If Sushrut had known the Indian hemp of to-day, he would surely have prescribed it in such complaints as chronic diarrhœa, dyspepsia, tetanus, etc., in which it is found prescribed by later works on medicine, rather than in ophthalmia. Similarly, if it was known in those days, it would have been noticed by him as well as by Charak, who preceded him, or, at any rate, by Vagbhat, who followed him, along with the other narcotics. This omission of Indian hemp by these three ancient authors in their

celebrated works on medicine is itself a great proof of the fact that it was not known in India in their time.

(2) Although the word bhanga occurs in Atharava Veda, Kaushitaki Brahman, Sutras of Panini and the Institutes of Manu, there is not the least evidence to show that it meant the narcotic *Cannabis indica*. There is not the slightest reference, direct or implied, to the narcotic properties of the plant in any of the passages of these works in which the word is found. In Atharva Veda it is simply mentioned along with Soma, Darbha and Yava. Panini refers to it as cultivated in fields (evidently for its fibre and seed). Manu and Kaushitaki Brahmana refer to it as a source of fibre. Later Sanskrit commentators and lexicographers interpret bhang as shana or Bengal *sunn* plant, *Crotalaria juncea* which has been known in India from times immemorial as a plant yielding fibre and cultivated for that purpose, and is, beyond doubt, a native of India. Now, whether those lexicographers are right in identifying bhang with *Crotalaria juncea*, or not, one thing is certain, that the plant referred to as bhang in ancient literature was a fibre-yielding plant (*Cannabis sativa* or *Crotalaria juncea*), and not the narcotic plant, the *Cannabis indica* of to-day; that, in other words, even if *Cannabis sativa* was cultivated in the times of the Atharva Veda or Panini, it was simply for the fibre or the seed, which, as will be shown elsewhere, was then used as food among the poorer classes, and that the narcotic element of the plant was in those days, and in those regions inhabited by the then Sanskrit-speaking Aryans, was as little developed as it is to this day in the European variety of hemp.

(3) This conclusion is further supported by the fact that there are no Sanskrit names for ganja or charas, and that all the words used by recent Sanskrit medical authors, such as Vijayá, Mádini, etc., to designate bhang and ganja, are newly coined, as they are not mentioned in any of the Sanskrit lexicons from Amarkosha down to Medini. They are not even mentioned by any of the medical Nighantus (lexicons) of an earlier date than that of Madanapal, who lived in the fourteenth century A.C. It is only in later medical works dating at most from the fourteenth century downwards, that the word ganja is applied to hemp narcotics (the leaves or bhang and the flowering tops being not distinguished). In classical Sanskrit the word means a liquor house.

(4) The history of the hemp plant also points to the same conclusion. De Candolle says: "The species has been found wild to the south of the Caspian Sea, in Siberia, in the desert of the Kirghiz, beyond Lake Bâikal and in Dahuria." He thinks that its area may have extended into China, but is not sure about the plant being indigenous to Persia. Bossier mentions it as quite wild in Persia, and it appears to be almost wild in the Western Himalayas and Kashmir. Observations of these naturalists together with the description of hemp given by Herodotus, who tells us that the ancient Scythians were acquainted with the narcotic properties of the hemp plant as well as with its fibre, and that they excited themselves by inhaling its vapour, would seem to fix the ancestral home of the plant somewhere in Central Asia. From thence the plant seems to have been introduced for its fibre and seed into the country occupied by the ancient Aryans to the north-west of the Punjab, where it became acclimatised at a comparatively remote date. I say it was first introduced for its fibre and seeds, because the grammarian Panini includes it under Dhânya, edible grains cultivated in fields (Pan. V. 2,4). The word used to designate it is bhanga. In his time the plant was similar to the European variety on account of the mode of cultivation and the nature of soil and climate. It would not be very difficult to understand how it could be so, when we consider that even to this day the Indian plant varies according to climate and soil in as marked a degree as it differs from the European. While on the Himalayas it yields a good fibre used by the hillmen for a coarse garment and for cordage; in Kashmir and Ladakh it secretes charas. Cultivated on the plains, the same plant yields ganja, and growing wild on the lower slopes of the Himalayas and other parts of Northern India it affords bhang. The ganja produced in different parts of India also differs considerably in its narcotic property, the proportion of the resin in it ranging from 1·5 to 14 per cent. This varying character of the plant renders the supposition more than probable that the bhanga of ancient literature represented the European variety of *Cannabis sativa*, and thus accounts for its not being mentioned by ancient Sanskrit medical writers as a narcotic and for its being reckoned by Panini among edible grains.

(5) Our conclusion is further corroborated by the fact that Huen Tsiang, the Chinese traveller of the seventh century, in his description of the manners, customs, habits, food and drink, etc., of the people of India in those days, does not make the slightest allusion to the use of hemp narcotics among any portion of the population, although he refers to alcoholic drinks and some other beverages then in common use. We thus see that the statements made by various authors with regard to the antiquity of the use of hemp narcotics in India are incorrect. The date of introduction of these narcotics in India cannot, in my opinion, go back beyond the thirteenth century A. C. Even to this day these narcotics have not made their way to any great extent in Southern India, where charas is hardly known by name, bhang scarcely ever drunk, and ganja only smoked by a very insignificant portion of the population.

41. Yes, it is very likely to be beneficial in the several ways indicated, although the term food may be objectionable to any form of the drug.

(*a*) Bhang is used as a digestive and cooling beverage by the people of Northern India in the hot season, and, in the form of powder as a digestive and stimulant in the cold season. In the hot season it counteracts the depressive and enervating effects of the parching heat of North-Western and Central Provinces and Bengal, and in the cold season it counteracts the effects of cold by stimulating the circulation and increasing nervous activity. It is used by bairagis, gosavis and fakirs for purposes mentioned under (*b*) and (*c*), and also by labourers for those mentioned under (*b*). In all these cases the moderate habitual use of the drug is referred to.

42. Whether beneficial or not, the moderate habitual use of any of these drugs must be harmless, because a moderate dose is not known to produce any special deleterious action on any of the organs, all the bad effects which are seen among smokers of ganja or drinkers of bhang being

generally traceable to an excessive indulgence in their habit.

43. Yes, quite inoffensive.

44. The effect of moderate use on a habitual consumer is refreshing and slightly intoxicating. It is said to increase hunger. The effect of smoking charas lasts about an hour or two, that of ganja smoking for two or three hours and that of drinking bhang lasts from six to twelve hours. The only after-effects are thirst and dulness of spirit. The want of subsequent gratification does produce a little longing and uneasiness, but not in the case of charas.

45. (*a*) No. I have seen many moderate consumers of bhang and ganja in quite a good health, physical, mental, and moral.

(*b*), (*c*), (*d*) and (*e*) No.

(*g*) I do not think that sufficient consideration has been given to the fact under question.

46. The habitual excessive use of any of these drugs does produce all the bad effects indicated in the above queries. I have seen several cases of asthma and insanity produced by excess in ganja and a few cases of dyspepsia, dysentery and insanity by indulgence in bhang. Hemp insanity does not partake of any particular nature. I have seen melancholia, dementia, acute mania and some forms of monomania produced by ganja smoking.

47. The habit is very likely to be hereditarily transmitted to children.

48. Children of habitual immoderate consumers would be affected in various ways. But as I have no instances to quote, I can't say anything further upon this point.

49. Yes, all these are used for aphrodisiac purposes, but more especially the conserves of bhang, as majum, etc., are so used. Also by prostitutes. Thus used it is more injurious than as an ordinary narcotic, simply because it always leads to conjugal excess and thus drains the system and is also a cause of impotence brought on by the excess.

50. The same remarks apply to the excessive use with greater force.

51. A certain number of bad characters are in this province habitual consumers of these drugs, but the proportion can't be said to be large when compared with alcoholic stimulants. The moderate use of these drugs cannot be said to have any connection with crime of any sort.

52. The same answer applies to the first part of the question. The excessive habitual use deranges the intellectual faculties, but I don't think that the moral faculties are specially affected so as to excite to crime.

53. As for the first part of the question, I don't think so, but with regard to the second part, I have read a case in Chever's Medical Jurisprudence for India in which a man was convicted of having murdered another by strangling him while in a state of intoxication from the effects of bhang.

54. Rarely.

55. Yes, they generally administer majum or some other hemp confectionery for that purpose. Complete stupefaction can be induced by a large dose of the drug without admixture.

56. Dhatura, nux vomica, and opium are sometimes added to bhang in majum and other sweetmeats in some parts of Northern India. The virulence of the preparation is greatly increased by dhatura and opium; the former is known to cause loss of speech in some cases. Nux vomica increases the aphrodisiac power of the drug. Used in excess, these admixtures lead to grave consequences, in some cases even proving fatal.

57. I don't know that charas is used internally in any part of India. The internal use of ganja in this province in the form of majum and other hemp sweetmeats and that of broken ganja as a substitute for bhang in the preparation of the beverage called "ghota," has been already fully dealt with under question 19. The use of the broken ganja for preparing the drink is most injurious, producing insanity, diarrhœa, dysentery and wasting of the body. It is desirable that Government should prohibit its internal use.

58. I think it is working well.

60. The present system does not require any modification.

63 and 64. No.

65. I think it is reasonable.

66. The rates of taxation should be proportionate to the strength of the drug as ascertained by chemical analysis.

67. No.

68. There are such houses in this province. I think there is a tendency to immoderate consumption in these houses, and that they also serve to spread the vice by attracting new customers, and for these reasons they are not desirable.

69. The wishes of the people are not practically ascertained before a new shop is opened in any locality. I think local public opinion ought to be thus ascertained.

70. I am not aware of any such facts. I don't think that there is any general use of untaxed drugs.

Oral evidence.

Question 1.—I put in a letter No. 759, dated 11th December 1893, from the Chairman of the Sarvajanik Sabha:—"I have the honour to herewith send to you the written statement of answers to the questions framed by the Indian Hemp Drugs Commission by Dr. Ganesh Krishna Garde, L. M. & S., Medical Practitioner, Poona, who has been appointed by the Managing Committee of the Poona Sarvajanik Sabha to give evidence before the said Commission."

I also put in printed answers to the questions of the Commission. I understand my position to be that of a delegate to represent the society. They have not formally accepted my views in detail. But they have selected me to represent them as a delegate, leaving on me the responsibility for details. I believe that my views are generally acceptable to the society. I base this belief on the fact of my selection as a delegate and also on the fact that my paper has been read by several members without any dissent. I am Licentiate of Medicine and Surgery of Bombay University. I took my degree in 1879, and have since practised in Poona in a private capacity.

Question 2.—Bhang properly so called is scarcely obtainable in the bazar on this side of the presidency. I have seen it, however. What is usually used as bhang here is broken ganja or chur.

Question 21.—From information I have received from contractors, I think that both the

flat and round kinds of ganja are manufactured in this presidency.

Question 23.—I cannot mention the names of any of the books referred to; but I remember the contradiction in Mr Hem Chandra Kerr's report. He mentions the fact that some books speak of smoking bhang.

Question 29.—I do not regard tobacco as narcotic. The object of using it is to make the hemp drug milder. Dhatura increases the narcotic effect of the hemp drug, and nux vomica its aphrodisiac properties. It is with majum they are thus used for eating, not for smoking.

Question 32.—The use of bhang in a religious way is here confined to the Shivaratri day and to very few persons in this part of the country. This is confined to cities also. I think there are some towns, such as Dharwar, Bijapur, etc., where no one uses it, who belongs to this part of the country. It is not a custom here. I cannot recollect any custom so general over India as the use of bhang at certain festivals which has not been prescribed in the Shastras. I know that among certain classes of Hindus (called Tantrikaulas and Shakhtas) it is absolutely necessary to offer wine at pujas, and in the absence of wine, bhang must be given to the god. I have read the Sanskrit work "Bijaikal" which deals with hemp drugs. I think the Sakandra Puran has little authority. My statement only refers to the customs of this province; and it is an accurate statement of what I believe these to be.

Question 35.—Speaking generally, I think that the effect of hemp drugs on the population is just as injurious as alcohol. Both are equally injurious. I think the same in regard to opium. I have not much experience of smoking opium; and do not refer to this. Ganja is more potent in its effects than bhang. Perhaps bhang might be compared to opium eating; it is less injurious. Ganja smoking is perhaps more injurious than opium eating and equally injurious to opium smoking. This subject has attracted my attention in my practice and as a general observer. I am not a member of any Temperance Society, or otherwise specially interested in such inquiries. The above views are not inconsistent with what I say in answer 39; for here I refer to the true bhang, which is milder than ganja; whereas in answer 39 I deal with the same preparation and the same dose. I admit, however, that the analogy with the view I have heard that opium smoking is worse than eating would seem to show that smoking ganja would be more harmful than eating it. But I have really but little experience regarding opium smoking, as already said.

Question 40.—I understand that *Cannabis sativa* and *Cannabis indica* are the same. But here I am speaking of the *Cannabis sativa* as the European variety of *Cannabis indica*; and I believe that this non-narcotic variety is what is referred to in the ancient books. Amarkosh's Sanskrit work contains no reference to ganja; and I do not think there is evidence of the existence of this plant in India before the thirteenth century.

Question 46.—I have not kept any notes of cases of hemp drug insanity. I have formed a general impression from my cases of the connection between hemp drugs and insanity; but I am not prepared to give any particular case in full detail.

Question 68.—I know nothing of the effects of closing the madak and chandu shops. I know nothing myself in regard to ganja shops where the drug is smoked on the premises. There is one shop for bhang drinking recently opened in Poona. This is the only one I know out of Bombay. The shopkeeper is a Poona man. These shops increase the facility for consumption; and by drinking in company there is a kind of competition. I also think that the sentiment of the disreputability of the practice of using these drugs is shaken by these shops, as the people think that Government seems to sanction the consumption; this would not be equally the result of the sanction of shops merely for the sale. I think that the mere licensing of shops produces among the educated classes the impression that Government sanctions and approves the sale of the drug, but not to the same extent among the uneducated classes. They ought, however, to know that licensing shops really means restriction.

Question 69.—I know of no case in which a local representation has been made against a shop and has been disregarded. I think, however, that an expression of local opinion should be actually invited before a shop is opened. It should stand, in my private opinion, on the vote of the majority. If the majority are non-consumers, they should be able to prevent the opening of a shop.

---

92. *Evidence of* J. Gerson da Cunha, *Medical Practitioner, Esplanade, Bombay.*

1. Medical practice amongst all sections of the community for the last twenty-seven years, also study of the subject from both ancient and modern authors.

2. Yes. Bhang, charas, and ganja.

19. Ganja is used for smoking. I have no experience of charas.

23. Not to my knowledge.

28. I cannot tell.

29. Ganja is mixed ordinarily with tobacco.

Bhang's infusion contains black pepper, anise, sugar, milk, cucumber and melon seeds ordinarily and exceptionally opium, the object being to make it more intoxicating and narcotic.

The bhang massala seems to me to be the same as majum, a confection made with hemp leaves to be used as a sweetmeat. This is either eaten alone or added to the infusion; but its composition varies in different parts of India, several intoxicating drugs being added to it.

Dr. Garcia d'Orta, the earliest European observer of the effects of bhang in India, and who published his work in Goa in 1563, mentions maju as eaten by Sultan Bahadur of Gujrat. He also mentions green betel-nut, nutmeg and musk as ingredients of the infusion.

30. I have seen the bhang and ganja consumed both in solitude and in company only among adults of both sexes. I am not aware of children consuming it.

31. I believe so. But it is not difficult to break off. I do not think that there is a tendency for the moderate habit to develop into the excessive.

32. I regret to say that I have no experience of any such customs.

36. I believe alcohol is being substituted for the hemp drugs. The cause of the substitution may be the facility in obtaining the former. I can give no proof. I have known the class of Gorawallas, who were once consumers of bhang, giving up the habit and drinking spirits instead.

37. I have no experience of charas.

39. I have said above that I have known the class of Gorawallas drinking bhang. I have also known them to smoke ganja, and I think smoking is less injurious than drinking. I cannot go further than this.

40. I do not know.

41. Yes ; in all four ways.

42. Yes ; I have known Brahmins, Marwaris, Gorawallas and the class of halalcores, called also bhangis from their habitual use of bhang, who use these drugs in moderation and are useful servants, are not worse than those who drink spirits habitually in moderation.

44. I believe the immediate effect of the moderate use of these drugs on the habitual consumer to be refreshing, exhilarating, allaying hunger and creating appetite. Their effect lasts about a couple of hours. There are no bad after-effects, nor does their want produce any uneasiness. I have known individuals who have given up the habit with great facility.

45. I do not think so.

46. Excessive habitual use of these drugs is always injurious. I have known persons impairing both their body and mind by the habitual excessive use of the drugs.

47. I do not think so.

48. I believe it affects the children of the excessive consumers.

49. Yes ; Garcia d'Orta also mentions it, but does not believe in its efficacy. It is a false notion. I have heard of its producing impotence, but probably it was not the sole cause.

50. I have heard that the excessive use produces impotence, but have not observed any typical case.

56. I am sorry I cannot tell.

57. I have mentioned that a confection of hemp ganja called majum is eaten, called by Garcia d'Orta *tetuario de maju*, or majum electuary. I also know of a native beer, called bhoj, used in the Deccan. It is brewed from jowari grain malted to which bhang is added. My experience is extremely limited in this case. Of charas I know nothing.

---

93. *Evidence of* Edalji Nashirvanji, *Parsi, Medical Practitioner, Bombay.*

1. Observation in medical practice.

19. Ganja and charas are mostly used for smoking. They are also used as medicine by vaids and hakims, and administered internally.

23. Not to my knowledge.

28. A moderate smoker smokes about 3 or 4 grains of ganja twice a day ; an excessive smoker about 10 grains. About 20 grains of ganja cost a quarter of an anna.

A moderate consumer takes about 8 grains of bhang, an excessive consumer about double the weight.

29. Ganja is often smoked mixed with tobacco. Bhang massala is said to contain bhang, almonds, pepper, rose petals, anise seeds, cardamoms, and poppy seeds.

30. Only the male sex uses them. It is not usual for childern to consume any of these drugs.

31. The habit is easily formed in company. Some people keep on the same quantity for a length of time. Others gradually increase the quantity.

37. The effects of charas and ganja smoking are the same ; perhaps a little different in degree. The effect of drinking bhang is at first a little stimulating.

40. Bhang and ganja are used as medicine by native doctors. Bhang is given to cattle as medicine for diarrhœa.

41. A person taking bhang or ganja takes and digests more food. The moderate use of these drugs is believed to strengthen and sustain nerve power and to alleviate fatigue. Bhang is used by some vaids as a febrifuge combined with pepper.

44. The immediate effect of the moderate use of these drugs is refreshing. It creates good appetite. The effect lasts for about an hour or two. The want of subsequent gratification always produces uneasiness and a longing for them in those who are habituated to use them.

45. The habitual moderate use of ganja smoking tends to produce physical and mental debility. It does not seem to produce any depravity of moral character. Bhang and ganja do not injure digestion, nor do they cause loss of appetite. They do not cause dysentery, bronchitis, or asthma, but, on the contrary, do good to these diseases. They do produce laziness to a certain extent and deaden the intellect. I have not seen them produce insanity. Their habitual use often produces night blindness.

47. There seems to be no hereditary tendency in the use of these drugs.

49. Bhang is used as an aphrodisiac, and forms a constituent of what is called majum.

---

94. *Evidence of* Dr. I. C. Lisboa, *Private Medical Practitioner, Bombay and Poona.*

23. In one of the cases reported on a separate paper, * bhang was used for smoking and in the form of tincture.

28. Not ascertained.

29. Dhatura in small doses is frequently used to cause exhilaration. Opium is also administered in small quantities. Don't know anything about nux vomica and cantharides. Betel-nut is fre-

* Not received.

quently used, but not mixed with hemp drug. It causes also the exhilaration.

30. The two cases mentioned occurred in the males only.

31. From the limited observations it is not difficult to break the habit off.

39. The two cases referred in another place tend to show that ganja and bhang have a distinct weakening effect upon the mind or a tendency towards producing insanity. This is the opinion of many natives.

41. (*a*) Some people say that it excites appetite.

(*b*) and (*c*) No, so far as my enquiries and observations go.

42. It appears from enquiries that moderate use of hemp drug leads in time to immoderate use. The young men, finding that the moderate use causes sexual excitement, increase the dose.

56. I have already stated why the admixture of opium and dhatura is given.

---

95. *Evidence of* Bhalchandra Krishna Bhatavadekar, *Brahmin, Medical Practitioner, Bombay.*

1. During the twenty years of my professional experience in Bombay and out of Bombay I have had opportunities of gathering information on this subject from books and from my contact with people of various shades of life, such as those who use these intoxicants either occasionally or habitually.

2. I believe these definitions may be accepted for this province. They are locally known thus:—(1) Bhang, sabji, siddhi, shambhari and patti; (2) charas; (3) ganja.

3. It grows spontaneously in the Deccan, such as Poona, Satara, Ahmednagar, Dhawad in Khandesh; such as Nusseerabad in the Konkan; as Panwel; and in the Gujarat, such as Surat, Ahmedabad and Baroda.

4. The names given above in answer No. 2.

7. The hemp plant is cultivated for the production of (*a*) ganja, and for the production of (*b*) bhang in Ahmednagar, Satara, Sholapur and Poona, and to a certain extent in Surat.

10. So far as I am aware, there is no special class of such cultivators. They belong to the agricultural class.

14. (*a*) Ganja is largely prepared in the Sholapur, Poona, Satara and Nusseerabad.

(*c*) Bhang is prepared in Ahmednagar, Sholapur, Poona and Surat.

18. All these three drugs deteriorate by keeping. In the course of one year they lose nearly half their power, and in the course of about four years they deteriorate completely. These drugs contain a resin and a volatile oil, which are their active narcotic constituents. The resin gets inert by exposure, and the volatile oil evaporates. I believe these are the causes of deterioration.

19. So far as I am aware, these two drugs are generally used for smoking; ganja is, however, used occasionally for medicinal purposes by the vaidyas and hakims; charas I believe is less frequently used in these parts of the country.

20. Ganja and charas are used for smoking by the mendicant gosains and fakirs in the great majority of cases. I believe, these people smoke these drugs very considerably, almost to 75 per cent. The lower classes of society, such as people depraved in habits, both of the Hindus and Muhammadan community, also smoke these drugs to about 10 to 15 per cent.

21. The variety of flat ganja is generally used.

23. I am not aware of bhang being ever used for smoking.

24. Nearly all classes of people use bhang for (*b*) drinking purposes, and I believe the percentage is over 50 for all classes; for (*a*) eating, the proportion seems to be comparatively small. I think it is not more than 2 per cent.

26. (*a*) Habitual moderate consumers of bhang about 50 per cent; of ganja, 20 per cent.

(*b*) Of bhang, about 20 per cent., of ganja, 5 per cent.

(*c*) Of bhang about 65 per cent., of ganja about 25 per cent.

(*d*) Of bhang, about 20 to 30 per cent., and of ganja 5 per cent.

27. The religious mendicant class of gosains and fakirs. Freedom from anxiety and domestic care, as well as company of gangs of these people.

28. The average allowance of ganja to (*a*) habitual moderate consumer is half a tola per diem, costing one anna, while that for (*b*) habitual excessive consumer is from 2 to 4 annas. In the case of bhang it is from 1 to 4 annas in the case of (*a*), and 2 to 6 annas in the case of (*b*).

29. Habitual drinkers of bhang ordinarily mix black pepper, dry rose buds and anise seeds. Occasional drinkers of bhang use (*b*) exceptionally almonds, black pepper, dry rose buds, anise seeds, sugarcandy, cardamoms and saffron, and milk, and some add cucumber and water-melon seeds.

Habitual smokers of ganja use tobacco, and occasional smokers use dhatura seed. The object of these admixtures is in some cases to enhance their value as narcotics, and some with object of making them pleasant and cooling drink.

30. I believe it is practised in solitude to about 25 per cent., and in company to about 50 per cent. It is not strictly confined to the male sex. No fixed age or time of life can be fixed. Lower class children to a small extent use these drugs.

31. The habit of consuming any of these drugs is easily formed, and it is not very difficult to break off. In the case of ganja smoking there is a tendency for the moderate habit to develop into the excessive.

32. Among the Deshastha Brahmins and Nagar Brahmins and Gujarathis generally on marriage occasions it is customary to use bhang in bhajias and in milk. Also on Shivaratri day it is customary for nearly all classes of people (Hindus) to drink bhang. The use is not regarded essential. It is generally temperate. This is not likely to lead to the formation of the habit or otherwise injurious, barring temporary effects.

33. The habit is generally regarded with disfavour, the person using them habitually is generally regarded by society as non-reliable, but is not excommunicated or looked on with great con-

tempt. Both social and religious public opinion is against the use of these drugs, especially the sect of the Swami Narayen Pantha in Gujarat and Kathiwad. The ganja smoker is particularly looked upon with indifference.

34. I am strongly of opinion that it will be a serious privation to deprive the habitual consumers of the drugs, because it is a necessary of life with many and a luxury with others, which would ultimately lead to discontent.

35. I don't believe it will be feasible to prohibit the use of any or all of these drugs. It will be consumed illicitly. The prohibition will, I believe, cause serious discontent amongst the consumers which may spread amongst the other class and may lead to undesirable results. The prohibition may lead to the use of alcoholic stimulant or to the use of opium, at least in the case of some of those who have no religious scruples. It would be impolitic to restrict the use.

36. I believe alcohol is now to a large extent being substituted for these drugs, especially bhang. I am not able to produce any proof in support of the statement. It is only my belief.

37. Charas is not so much in vogue as ganja in these parts; still some persons use it, and from observations it is known that the effects of charas smoking are to a certain extent different to those of ganja smoking. Ganja produces for a time a refreshing or exhilarating effect, and then drowsiness, while charas produces drowsiness immediately and then insensibility. There is also a marked difference in the duration of the effect; that for charas lasts for several hours, while that for ganja is not much prolonged.

39. I don't believe the smoking of these drugs is less injurious; perhaps it is more injurious than the drinking. My reason for holding this opinion is that the smoking process is more rapid by the absorption of the narcotic principles of the drugs, and the poison is at once and directly brought into contact with the lungs, the blood and the nervous system; while the drinking process affects the system through digestive organs.

40. Bhang and ganja are often prescribed by the vaidyas and hakims in fevers, dysentery, diarrhœa, sleeplessness and impotence, and as aphrodisiacs very commonly.

41. I believe the moderate use of bhang is to a certain extent beneficial, as (*a*) a digestive, (*b*) an exhilarant to alleviate fatigue and over-exertion, (*c*) a prophylactic to a very small extent against malaria, and (*d*) adjunct to concentration of the mind and contemplation. I believe this use of the drug is to be found amongst the higher, middle and lower classes to the extent of about 5 to 10 per cent. I refer to the moderate habitual use of the drug. I don't include ganja and charas in the above remarks, for I consider their moderate habitual use not only not beneficial, but positively harmful.

43. I believe moderate consumers of bhang are generally inoffensive to their neighbours.

44. I am of opinion that the immediate effect of the moderate use of these drugs on the habitual consumer is to cause a refreshing or exhilarating sensation, followed by intoxication, not in the sense caused by alcoholic stimulants. I believe these drugs in moderate doses produce appetite, in some cases even ravenous appetite. The effect in the majority of cases lasts from 3 to 4 hours, sometimes 6 hours. The after-effects are those of exhaustion of the nervous system, lassitude, inability to work, and I am inclined to believe the want of subsequent gratification produces longing and uneasiness.

45. I have not met with any cases in which the habitual moderate use of bhang has produced any noxious effect, either physical, mental or moral. But I believe the habitual moderate use of ganja and charas does produce some noxious effect, physically, mentally and morally. I am inclined to believe that the habitual moderate use of the latter two drugs impairs the constitution, generally injures the digestion, causes laziness and indolence; but I have not known of cases where it led to immorality or debauchery. It to a certain extent deadens the intellect, but I don't believe it leads to insanity, at least of a permanent nature. It may perhaps lead to temporary aberration for the time being.

46. The habitual excessive use of all these three drugs is in my opinion very injurious. It causes the face to become bloated, the eyes injected, and the limbs weak and tremulous; the mind grows imbecile and ultimately death by marasmus closes the scene. I have known several typical cases of this sort. Of them some three or four cases were of mania due to excessive use of ganja, due to bad company. If I remember right, I believe there was no mental anxiety or brain disease to obtain relief by these drugs.

47. I am not aware of the hereditary nature of the moderate habitual use of the drugs.

49. I believe the moderate use of the drugs is practised as an aphrodisiac. I am not aware of their use by prostitutes. The moderate use of any of the hemp drugs does not, so far as I am aware, produce any impotence.

50. The excessive use of these drugs does tend to produce impotence.

53. I believe the excessive indulgence in any of these drugs leads to unpremeditated crime. I have heard of cases, but I have not come across any.

54. I have heard of their being used for this purpose, such as running amuck, but I have not seen any case.

55. I have not come across any cases. Dr. Lyon, late Professor of Medical Jurisprudence and Toxicology in the Grant Medical College and Government Chemical Analyser to the Government of Bombay, says: "In India *Cannabis* appears to be seldom, if ever, used for homicidal purposes." Dr. Norman Chevers, however, mentions a case which occurred in Ahmednagar in which a woman having first drugged with majum a child aged 7 afterwards murdered her for ornaments.

62. I am of opinion that there is no necessity of controlling the cultivation. I believe it would produce discontent.

67. I believe that the present method of taxation of ganja and bhang is objectionable, inasmuch as the ultimate incident of the tax falls rather heavily on the poor mendicant classes.

96. *Evidence of* ISMAIL JAN MOHOMED, *Khoja, Physician, Bombay.*

1. During my practice of eight years I have come across several patients using the drug in one form or the other.

2. Charas is also known as bhongus ras (Guzrati), and bhang itself is called thandai in Urdu.

4. Arabic—Nabtula—kinnoba and hashaisha is the substance prepared from it. It is called mafuen by Chinese.

15. Bhang or ganja is mixed with tobacco and chewed also; from bhang a preparation is made called majum. A cooling drink is prepared from bhang called thandai, and charas is used for smoking.

16. Bhang is not generally prepared in the house.

17. Marwaris, Purbhoyas, and native singers called ustads.

19. Local application, a sedative also.

20. Very small proportion of the population use the drug, generally the fakir and gosain people use it, and occasionally young men of good class who come in contact with above class are induced to use the drug.

24. Marwaris and Bhayas and the native singers. About 2 per cent. of them.

25. It is on the increase, as I have seen a number of cases of young men of late.

26. As to bhang only—

(*a*) One per cent.

(*b*) Very few.

(*c*) A larger proportion than the above.

27. Bhang is generally used by these people to produce a pleasant intoxication and stimulation of the brain; some business men use it very moderately. Others use it for its aphrodisiac effects, and its supposed effect in preventing an early discharge of semen; but it is generally used by people who have no occupation, but who spend their lives as fakirs or sadhus or vagrants.

28. (*a*) Two pice.

(*b*) Four annas or more.

29. Dhatura is used very exceptionally to produce more narcotic effects; tabasier or vanslochar is used, and miri gulab kali, khaskhas and the fine cucurbitoca seeds and almond and cardamoms are used.

30. Ganja and bhang are generally used in company, but it is only used in solitude, if one wants to avoid detection. Children soon get into the habit of taking bhang, if they only use it for a few times.

31. Habit is easily formed. It is difficult to break off; there is a tendency to develop into excessive habit.

32. During Holi festival the Marwaris visit each other's shops in great crowds, and they are giving bhang and bhajias. Some of them take bhang from every place that they visit. I have heard that during the marriage ceremony among Bhias they prepare bhang.

33. Those who use the drugs immoderately are not respected in society, but even those people who are in the habit of taking moderately are shunned by those who do not use it.

34. No; it would be great blessing to prevent its free use.

35. (*a*) Yes.

(*b*) Rarely.

(*c*) By enhancing the duty on it. Prohibition may for a time be followed by the use of other drugs.

36. I don't think that people who use ganja would be satisfied by the use of alcohol instead, as the pleasure is quite different, but there is more facility in getting alcohol for a little more price, so there is a likelihood of the habit being changed from ganja to alcohol.

37. The effects of charas are more narcotic.

39. Smoking ganja is very injurious, as I have had a number of cases in my practice; atrophy of the whole body is set in after prolonged use of ganja smoking.

40. Bhang is used by native doctors to give appetite, also in diarrhœa and gonorrhœa, also as a fumigation in curing piles.

41. The effects are very deceptive, for the first few days it acts as a digestive, and produces a sensation of warmth, but ultimately it is harmful.

42. I think even the moderate use of it for a long time is harmful.

43. They are inoffensive, inasmuch as they are not violent.

44. *Bhang.*—It produces a pleasant narcotic sensation, gives appetite first, but afterwards allays hunger. The mind becomes deranged after a long use, more so after the use of ganja, and the sexual powers are totally diminished or lost after ganja smoking. It does produce a longing.

45. After ganja—Yes, body wastes, mental faculties become confused, and the moral sense becomes below par. Yes; many cases of chronic diarrhœa and dysentery, as well as chronic bronchitis and asthma, are seen in those who use ganja. It does produce laziness, and excessive use does produce temporary insanity. I think ganja-smoking produces insanity peculiar to it, as well as I believe insane persons are likely to take up the use of the drug. I know of two cases in which persons with no hereditary history of insanity became insanes after prolonged use of ganja.

47. I believe it is hereditary in some cases.

49. Bhang, majum and subji are used as aphrodisiacs. I think it is more injurious than when used as narcotic, because it leads to excessive sexual indulgences, premature decay and death. Ganja produces impotence.

51. There is a small proportion of bad characters who use ganja. The use of ganja has some connection with crime in general.

53. After excessive use of bhang, I have seen one case.

55. If bhang is taken in large quantity, complete stupefaction ensues, but as a rule admixture is necessary.

56. I have heard of dhatura being mixed with ganja, but how it is made serviceable for criminal purposes I cannot say.

97. *Evidence of* ARDESIR DADABHOY MODY, *Parsi, J.P., Member, Municipal Corporation, Medical Practitioner, Bombay.*

1. My practice is among the natives of Bombay, and especially among the Parsis.

(My evidence is as regards the Parsis of Bombay only.)

2. Bhang, charas, ganja.

20. The Parsis as a rule do not smoke. I do not know of any Parsi who smokes ganja or charas.

23. Generally bhang is not used for smoking.

26. A very few Parsis used bhang *occasionally* in a very small dose made up into a sweet drink with milk, sugar, almonds, &c.; but that practice is much on the decrease.

29. Dhatura was never used by the Parsis to make up the bhang drink.

30. The bhang drink was used in company, and it was only by the male sex. Never given by the Parsis to children.

31. By taking bhang drink occasionally and in very small doses, no habit is formed.

32. There is no social or religious custom among the Parsis in which bhang is consumed.

33. The public opinion amongst the Parsis is very much against the use of bhang.

34. It would not be any privation to the Parsis to forego the consumption of the drug.

43. Occasional moderate consumers are inoffensive to their neighbours.

44. It produces intoxication. It does not allay hunger, except taken with milk, etc. The after-effects are laziness and inaptitude for work, and want of sleep and appetite. The want of subsequent gratification produces longing and uneasiness.

45. (*b*) and (*c*) Yes.

(*d*) It causes dysentery and other derangements of the bowels.

(*e*) It induces laziness.

(*f*) It deadens the intellect and produces insanity, as imbecility, which has a tendency to be permanent.

47. Not hereditary. The children are weak.

49. The use of hemp tends to produce impotence.

---

98. *Evidence of* UTTAMRAM JEEWANRAM, ITCHAPOORIA, *Audesh, Brahmin, Native Doctor (Vaidya), Bombay and Surat.*

1. My experience obtained as a vaidya.

2. The definitions of Dr. Prain may be accepted. Round ganja I have never seen. I know broken ganja as "garda," and broken bhang as "bhuki."

Ganja is known to me by the names of ganja and mala. Charas is known as charas. Bhang is known as vijaya, subji, maya, lillaghur, dyanvalli, and patti.

7. There is cultivation of the hemp plant in the Surat district, which is my home, (*a*) for ganja, (*c*) for bhang, (*d*) for seeds.

At Bhatta, a village in the Surat district. I know also that the hemp plant is cultivated for bhang at Diva and Devi villages, near Ankleshwar in the Broach district.

9. The seeds are sown in the months of Shrawan and Bhaderwa. They are sown like jowari. The plant is ready in six or seven months after the sowing of the seed. The plants are not irrigated.

10. No special class cultivates the hemp plant for narcotics in my district.

14. (*a*) Ganja is prepared and (*c*) bhang is prepared in Bhatta in the Surat district, and Dewa and Devi in the Broach district.

17. Kolis and Kunbis.

18. Ganja and bhang deteriorate by keeping. They lose some of their narcotic properties. In time they quite lose their narcotic effects. Ganja will keep good for about two years, and bhang for one year, with ordinary care. I attribute deterioration to the absorption of moisture from the atmosphere.

19. Ganja and charas are only used for smoking. I do not know whether either is used for any other purpose.

20. Ganja is smoked by Brahmins, Wanis, Kunbis, Ghanchis, and sadhus. It is also smoked by Muhammadans and fakirs. Some of the Burmese staying at present at Rander also smoke ganja. Charas is mostly smoked by Muhammadans, fakirs, and few sadhus and Kunbis.

21. Round ganja is not obtainable here. Flat ganja is used here for smoking.

22. I have no personal knowledge of charas, and I cannot say whether the charas used in Bombay is native or foreign. In the Surat district charas is very little used.

23. Bhang is never used for smoking. It is, however, used as medicine, for vapour purposes in piles, and in the case of irritation of rectum and vagina.

24. Bhang is chiefly used for drinking. It is very rarely eaten. Hindus of almost all classes and Muhammadans drink bhang. Bhang is commonly used in Central Provinces, Guzarat, Marwar, Gokul, Mathura.

25. I think the use of ganja, bhang, and charas is on the decrease in the Surat zilla. I do not know whether the use of these drugs is on the increase or decrease in other provinces. I attribute the decrease in the consumption of these drugs here to two causes, firstly, the spread of education, and secondly, the want of company.

28. I am not in a position to answer this question.

29. Ganja is ordinarily smoked with or without tobacco. I have seen one man preparing cigarette of ganja and putting in it little opium and saffron. In bhang ordinarily pepper is mixed, and exceptionally cardamoms, rose buds, anise, poppy seeds,

saffron, musk, almond, pista, charoli, sugar, and milk. I know sometimes shaloo jowari roots (the roots of jowari cultivated in the cold season) are mixed with bhang to increase its narcotic effect; and in ganja, dhatura seeds are sometimes added to increase its narcotic effect.

I know that a preparation, known as bhang massala, is sold in the market, the ingredients of which are almost the same, which are exceptionally used in preparing bhang drink.

30. The consumption of these drugs is practised in solitude as well as in company. The use of these drugs is mainly confined to the male sex. Few of the women of sadhus and bawas use ganja. It is generally practised after 16 years of age. In childhood it is not practised. It is not usual for children to consume any of these drugs. The jewellers give bhang, when specially prepared, to their children and women. In Navasari and in other parts of Gujarat and Central Provinces women on seldom occasions drink bhang.

31. The habit of consuming these drugs is easily formed. If the habit is of a long standing the man finds it difficult to break it off. The moderate habit is generally developed into excessive one.

32. There is no custom, social or religious, when the use of these drugs is essential.

33. The use of these drugs is in disrepute. The hemp plant is not worshipped by any people.

34. There will be no serious privation to the consumers to forego the use of these drugs.

35. It is feasible to prohibit the use of these drugs. Consumers would for some time use the drugs illicitly. No doubt the consumers would be discontented, but such discontent will not amount to a political danger. Those who do not drink alcohol will not take to it, but will try to break off the habit.

36. I do not think that alcohol is substituted for these drugs to any extent.

37. The effect of charas is to stupefy the consumer. Ganja excites the man.

38. I do not know round ganja. The narcotic effect of flat ganja is stronger than that of chur or broken ganja.

39. The smoking of ganja and charas is less injurious than drinking and eating the same.

40. I used bhang in pains, rheumatism, fever, loss of appetite, restlessness, burning symptoms in phthisis, dysentery, acute and chronic diarrhœa, cramps, hysteria, headache, tetanus, muscular rheumatism, brain fever, and hæmorrhage. Ganja is used in cases of loss of appetite, loss of sleep, and colic, and sometimes as a stimulant. I do not use charas. Bhang is prescribed along with other native medicines in different forms of the above diseases.

41. The moderate use of ganja and bhang is beneficial. Bhang is a food accessory. Ganja taken on empty stomach injures the constitution, but if taken after food, it is digestive and refreshing in exertion and fatigue. Ganja and bhang are used in malarious tracts to prevent the malarious attacks. I have experienced that the consumers of bhang and ganja very rarely suffer from malarious fever. Ganja has a special property of giving tone to liver. It is the occasional moderate use.

42. The moderate use of ganja and bhang is beneficial.

43. The moderate consumers of ganja and bhang are not offensive to their neighbours.

44. The immediate effects of the moderate use of ganja and bhang on the habitual consumer are refreshing and produce little intoxication. In some cases it creates appetite and in some cases it does not create appetite. At times man gets vomit. The effect lasts for about seven hours. The after-effects are dulness and dryness of the mouth, and the want of subsequent gratification is produced.

45. The habitual moderate use of ganja and bhang does not produce any noxious effects, physical, mental, or moral; does not injure the constitution. Ganja after long time, and if no nutritious food is taken, would produce bronchitis and asthma, and weaken the teeth. The moderate use does not deaden the intellect.

46. I cannot positively say that excessive use of ganja and bhang injures the man, physically, mentally, and morally. It depends on the man's constitution. I have seen several excessive consumers in good health, and I have also seen men using these drugs occasionally have turned mad.

47. The habitual moderate use of any of these drugs does not appear to be a hereditary habit, or to affect in any way the children of the moderate consumer.

48. The excessive use even does not affect the children of the consumers.

49. Bhang is used in moderation as an aphrodisiac. When it is used for the said purpose it is more injurious than its use as an ordinary narcotic. Bhang, for the above purpose, is administered along with other ingredients. There is one treatise called Wajikarana which treats of preserving potency, and in which the use of bhang has been mentioned as an aphrodisiac.

50. Bhang is not used in excess as an aphrodisiac.

51. I know the large proportion of bad characters use these drugs more or less, but I do not think that there is any connection with crime in general, or with crime of any special character.

53. I do not know of any case where a criminal has committed unpremeditated crime after the use of ganja or bhang.

54. There is no such property in ganja and bhang as to shake the timidity and to nerve the person to commit a premeditated act of violence or other crime.

55. I do not know of any case in which criminals, in order to further their designs, have induced their victims to partake of any of these drugs and so stupefy them. Complete stupefaction is not produced by these drugs without admixture.

56. The effects of ganja are modified by adding tobacco, and that of bhang are modified by diluting it with water. Dhatura seeds are mixed with ganja and shaloo jowari roots with bhang to increase their narcotic property.

57. The effects of eating and drinking ganja and charas are not in any way different from those of smoking.

58 to 70. These questions deal with administration, taxation and control; and as I am ignorant of the present system of administration, I am not in a position to make any suggestion on that head.

99. *Evidence of* KESHOWRAM HARIDAT, *Chapooria, Audesh Brahmin, Native Doctor (Vaidya), Rander, Surat and Bombay.*

1. My answers regarding the matters connected with hemp drugs are framed from the study of the medical books, from experience gained in the medical practice, and from the information obtained from the persons who use these drugs.

2. The definitions of Dr. Prain are correct, and may be accepted. I know bhang by the names of bhangro, vijaya, dyanvali, shankar priya, thandai, and patti. I know ganja by the name of shigra bodha. Charas is pronounced here as chadas.

3. The hemp plant does not grow spontaneously. The plant is required to be cultivated.

The hemp plant is generally known by the name of bhang tree. Some of the bhang trees get flowers; these trees are called bhangro. These trees are pulled out from the field, as the existence of these trees spoils other plants. This flowering plant is male plant.

6. The growth of the wild hemp plant is scattered. Ganja prepared from the wild plant is known by the name of gurakh ganja.

7. Formerly there was cultivation of hemp plant in Bhattu and Kawas villages of the Surat district. At present there is no cultivation of hemp plant in those villages. These plants were cultivated for production of bhang only. Ganja and charas were not prepared.

8. I do not know anything about this question.

9. In May and June the land is ploughed, and at the beginning of the monsoon the seeds are sown, like jowari. After ten or twelve days after sowing, the plant comes out. After about one month the male plants begin to flower, when they are distinguished and pulled out; searching for the male plant lasts about three months. The plant is ready in six or seven months after the sowing of the seed. Then the plants are cut and dashed. The droppings then are cleaned and collected, which is then called bhang.

10. There is no special class of cultivators of the hemp plant for its narcotic properties. The ordinary cultivators who know the art cultivate hemp plant in the land fit for its cultivation.

11. The seed of the wild hemp is not used for cultivating the plant for the production of ganja.

15. I do not know whether different methods are adopted for preparing ganja, bhang, and charas from (*a*) the cultivated (*b*) and the wild plant for (A) smoking, (B) eating, and (C) drinking.

16. Hemp plant does not grow in the compounds of houses, and if at all any plant grows, bhang of that plant, if prepared, is not fit for drinking. Bhang cannot be prepared from the plant wherever grown. Ganja and charas are not prepared from the wild plant wherever grown.

17. It is not prepared by all the cultivators, but those only who know the art prepare it.

18. Ganja and bhang deteriorate by keeping, and after one or two years they lose their narcotic effect and become quite useless. Ganja and bhang will keep good for two years, if stored air-tight, in a hot place. After two years, although kept in the above manner, they deteriorate.

The causes of deterioration—(1) keeping for a long time, (2) absorption of moisture from the atmosphere, (3) insects germinating inside, (4) exposure.

19. Ganja and charas are used only for smoking. Ganja is used in medicine, when it is made into pills, powders, tinctures, etc.

20. Swami Narayan's followers and Parsis excepted, almost all classes make use of ganja and charas. Ganja is used by the low classes of Muhammadans, fakirs, sadhus, kolis, kunbis, banias, and Brahmins. Charas is used by sadhus and fakirs, who as a necessity require some strong narcotic.

21. Generally flat ganja is preferred.

23. Bhang is never used for smoking. It is used for giving vapour in piles as medicine.

24. In Surat district the greater proportion of the people use bhang for drinking.

25. The use of ganja, bhang, and charas is on the decrease. I attribute this to the spread of education and care of honour.

28. The habitual moderate consumer requires about half to one tola of ganja, the cost of which is about quarter anna to half anna, bhang about two to five tolas, the cost of which is about half to one anna.

The excessive consumer requires about quarter to half a seer of ganja, and about half seer of bhang, the cost of which is four annas and three annas respectively.

29. In ganja ordinarily tobacco is mixed, and exceptionally amar, musk, cardamoms, etc., are added. In bhang ordinarily pepper is mixed, and exceptionally cardamoms, anise, rose buds, kusani, sugar, milk, choroli, pista, almond, poppy seeds, and other sorts of seeds. I know that gandhis sell above-named ingredients as bhang massala.

30. The use of these drugs is practised in solitude, but chiefly it is practised in company. The use is mainly confined to the male sex, although few of the women on seldom occasion partake bhang. There is no fixed time of life when it should be practised; it is taken at any time of life. The indulging parents sometimes give bhang to their children, who thereby acquire habit. Jewellers give bhang to their children when they are five or six years old.

31. The habit of using these drugs is easily formed by using the drugs frequently. If the consumer wishes, he can break off the habit gradually. The moderate use is developed into excessive one.

32. There is no social or religious custom when the use of ganja or bhang is necessary.

33. The consumption of ganja, bhang and charas is considered by the people as disrespectable. I do not know whether the hemp plant is worshipped on any occasion by any sect of the people.

34. Sudden prohibition will be considered by the consumers as a serious privation, but gradually the habit can be broken off.

35. If the use of ganja, bhang and charas is prohibited, the consumers will use them illicitly. The prohibition can only be enforced by passing an Act. The sudden prohibition would cause discontent among consumers, though such discontent would not amount to political danger. The consumers who have no objection for other

narcotic will take to alcohol, and those who could not take alcohol will leave the habit gradually.

37. The narcotic effects of charas are more than those of ganja. Charas is two or three times stronger than ganja.

38. Flat ganja has more narcotic effect in it than round ganja, and broken ganja has less narcotic effect in it than round ganja.

39. The smoking of ganja is less injurious than eating and drinking.

40. I use ganja and bhang on account of their medicinal qualities. Ganja is prescribed in colic pains and as sleeping draught. Bhang is prescribed in venereal diseases and for passing urine, and in dysentery.

41. Ganja one-fourth of a tola, bhang one tola, and charas half wal, if taken, are beneficial as a food accessory. The use in such doses increases the strength, gives staying-power under severe exertion or exposure, and alleviates fatigue, and refreshes the consumer. In malarious and unhealthy tracts use of ganja protects the man from malarious attacks. The use of these drugs should only be practised for the above purposes, and should not be indulged in.

42. Ganja and bhang, though not beneficial, are not harmful to those who use them moderately.

43. The moderate consumers are not offensive to their neighbours, but when taken in excess, they become offensive.

44. The habitual moderate consumer of ganja feels refreshed after taking ganja. It produces very little intoxication on him. It increases appetite, and keeps the consumer in good humour. The intoxication lasts for about two to three hours, after which time want of subsequent gratification is produced, and if the man does not get ganja to smoke he feels uneasy.

The consumers of bhang generally take bhang twice in a day, once in the morning and once in the evening. Bhang does not stop a man from his work. The intoxication of bhang lasts for about seven to eight hours. No longing for subsequent gratification is produced in the case of bhang. But the man feels dull after the intoxication is over.

45. The habitual moderate use of ganja, bhang and charas does not for a long time produce any noxious effects, physical, mental and moral.

46. The habitual excessive use injures the digestion and causes loss of appetite. It causes bronchitis and asthma. It deadens the intellect and produces temporary insanity. Insanity is re-induced by use of the drug after liberation from restraint. It spoils the moral character of the consumer. The typical symptoms of an insane from the use of these drugs are that he gets staring sight, his eyes become red, he gets forgetfulness and his voice is changed.

47. The habitual moderate use of any of these drugs does not appear to be hereditary habit, or to affect in any way the children of the moderate consumers.

48. I do not know whether the excessive use of these drugs affects the children of the consumers or not.

49. Every narcotic is aphrodisiac, and I know these drugs are sometimes used for that purpose.

50. If these drugs are taken in excess as an aphrodisiac, they injure the constitution.

53. The excessive indulgence in these drugs does incite the consumer to commit unpremeditated crime, and at times leads to temporary homicidal frenzy.

54. I know the criminals have used these drugs to fortify themselves to commit premeditated acts of violence.

55. The criminals do, in order to further their designs, induce their victims to partake of these drugs and so stupefy them, and then rob them of their valuable things, and walk away leaving the victim on the spot. Complete stupefaction is brought on by these drugs without any admixture in the case of men who are not used to these drugs.

56. Tobacco is mixed with ganja to modify its effects. Nothing is added to bhang to modify its effects. Bhang, if taken in small doses, produces but very little intoxication. Those who are excessive consumers, and when the drug does not produce intoxication, add dhatura seeds in ganja and old jowari roots in bhang to increase their narcotic power.

57. I have no information about this question.

58 to 70. The questions in this chapter relate to administration, taxation and control; and as I do not know the present system of administration, I am unable to make any suggestion.

---

100. *Evidence of* Mr. Purbhuram Jeewanram, *Nagar Brahmin, Native Doctor (Vaidya), Bombay.*

1. While practising medicine in the presidency of Bombay and the province of Kathiawar, according to the ancient Aryan system, I have had opportunities of gaining information in matters relating to hemp drugs. On many occasions I have used the drug in question in different medicinal preparations, and I have met with many patients of the class who use hemp drugs occasionally or habitually.

2. The definitions may be accepted. Hemp drugs are known here by the same names.

We do not particularly distinguish between the different kinds of ganja.

7. The hemp plant is cultivated in many parts of the Bombay presidency. For use as bhang the plant is cultivated in Guzerat. Bhang is also imported from the Punjab.

9. The bhang plant is grown together with other grains. The seeds are sown broadcast. It is also grown in gardens and irrigated; this generally for personal use.

10. To my knowledge they do not form a special class. The plant is grown by the ordinary agricultural cultivators.

18. Hemp drugs do deteriorate by keeping, and in time they lose their effect. Bhang may be kept good for one year with care. I think the cause of deterioration to be exposure to air for a prolonged period. As far as I know, it is not possible to prevent deterioration taking place.

19. I do not know much about charas. Ganja is not only used for smoking, it is used also in medicines. A decoction of ganja, or sometimes an extract of ganja, is given to patients to induce sleep. It is used also in various preparations for nervine diseases. One of the preparations is made by mixing it with ghi, and it is then used as a tonic.

20. Sadhus and men of the lower class and poor men use ganja. The use is prevalent all over India.

24. Brahmins, Kshatryas and Vaishyas, both rich and poor, use bhang. People of the working classes also use bhang. Bhang is generally drunk; but it is eaten when it is inconvenient to prepare the drink. In the hot weather in hot climates all classes drink bhang. Scholars and priests, who are not allowed to use liquor as a stimulant, freely drink bhang. Dealers in precious stones, pearls and jewels drink bhang, as they consider the drink helps them in their examination of these articles.

25. With the advance of the natives of India in English education and ways of thought, and the influence of contact with Europeans, there has been generated amongst natives of the educated and lower class a taste for spirituous drinks. The inconveniences and trouble in preparing bhang, as contrasted with the ease with which liquor may be obtained and drunk, has stimulated the wide use of the latter, and decreased the consumption of bhang. I think the evil effects of spirit drinking are beginning to be felt, and that in the distant future bhang may be more extensively used than it is now. To vegetarians spirituous stimulants are altogether unsuitable.

27. In the Bombay presidency the jewellers and dealers in precious stones and pearls, who are mostly shrawak banias, and originally from Surat, are habitual moderate consumers of bhang. Babus from Bengal and scholars and religious preachers, mostly high-caste Brahmins, are also habitual moderate consumers of bhang. Habitual excessive consumers of bhang will be found among the Brahmins, who perform religious rites in the temples and houses of the people. Occasional moderate bhang drinking is indulged in by men of all classes, high and low, rich and poor, without exception.

28. A moderate allowance of bhang is one-quarter tola, costing a quarter of an anna. This will serve for twice. An allowance of one tola of bhang or thereabout, costing about half an anna, is reckoned excessive.

29. In the ordinary preparation, which is generally used by habitual drinkers, black pepper and sugar are mixed, and the drink is made by mixing well rubbed bhang powder in water.

When bhang is prepared by rich persons, and also when it is prepared on special occasions, sugar and pepper are invariably added, with almonds, pistachio nuts, chirongia-sopila, cinnamon, cardamoms, mace, nutmeg, saffron, musk, and conserve of roses. The ingredients added will depend on the means of the drinker and the occasion for which the drink is prepared. Dhatura, which is a strong narcotic, is not ordinarily mixed with bhang.

30. The habitual consumer of bhang and ganja uses these drugs when in company and also when alone. As regards bhang, it is generally drunk in the company of friends, and its use is not restricted to any sex or age. Women and children are allowed to use bhang according to their suitabilities. Ganja is not used by women and children. Bhang is not very commonly used by children; but it may be given to them as a medicine in proper doses to their great benefit.

31. The habit is not easily formed; but much depends on the temperament of the man and his associates. The habit is not difficult to break off, except when of long standing. The moderate bhang and ganja consumer generally increases his allowance of the drug in time. It is always possible for the bhang-drinker to check the habit at any time, unless it has taken very deep root.

32. Bhang is used on Shivaratri, a day consecrated to the god Shiva, who is reported to be fond of bhang. It is also used on occasions when offerings are made to Baldeo, elder brother of the god Krishna, who, it is said, has an excessive partiality for the drug. The devotees of Baldeo divide the offerings made to the god among themselves with great reverence, piety, and pleasure. Though the use of bhang in this manner cannot be said to be essential, as there are no strict scriptural injunctions for the same, yet, as these customs have acquired a time-honoured reference and religious belief, it would be most difficult to persuade men to the belief that the use is quite optional. In India, when foreign invasions by men of alien religions have resulted in the destruction of many of the Hindu sacred works, custom, strengthened by religious precept, has obtained such a strong hold on the minds of the people, that even the positive commands of the religious books are sometimes waived in favour of custom. I therefore think the use of bhang on such occasions is essential. Its use in this way is generally temperate, and not likely to lead to a habit with the consumer, and is never injurious to him. Offerings of bhang are made to the god Shiva, with a belief that it brings blessings to the offerer, and sometimes cures him of bodily diseases that he may be suffering from.

In connection with ganja, such religious observances as have been mentioned are not known to me. Its use, however, is thought to be essential to bairagis, to keep them from worldly thoughts, and to assist them in their contemplation of God.

33. Generally the consumption of bhang in moderation has no stigma attached to it, nor is the bhang drinker held in high respect. Its use is neither socially nor religiously prohibited in moderation, and public opinion is not averse to the practice in this way. The use of ganja is held in disrepute. The cause of this sentiment is that, generally, no great reliance can be placed on the man who makes himself senseless, and consequently forgets promises that he has made. So far as I know, the hemp plant is worshipped nowhere.

34. It would certainly be a very serious privation to all classes of consumers to forego the consumption of the drug they use. In India bhang is essentially necessary, both socially and medically. People have, to their great advantage, used the drug till now, and a certain religious veneration on account of its being offered to the deities has caused them to regard it as a necessity which they can ill afford to forego. To merchants and jewellers, who are moderate consumers of the best sort of bhang, it would bring great mental trouble and vexation to forego the use of the drug which they have used for many generations, and which would prevent them from doing their business with ease and confidence. As bhang quickens the imagination somewhat, religious preachers, who

use bhang, would not be able to preach as well without it. Scholars and writers, who are in the habit of taking bhang before they set themselves to their work, would find themselves in grave difficulties without it. Bhang, when moderately indulged in, increases vigour and assists contemplation.

The use of spirituous drinks is not wholesome with the simple vegetable native diet. Only vegetable stimulants are best suited to our climate and diet. It would certainly be a serious affliction to the poor native to debar him from his native, uncostly, beneficial vegetable stimulant, which in some cases is a necessity to him.

The continuous use of ganja by bairagis for several centuries has caused them to regard it as almost a necessity of their lives. At first it would be very hard for them to forego consumption, and they would regard it as a religious encroachment, not because they could not easily break off the habit, but because, without ganja, they would find it difficult to obtain a substitute to assist them in forgetting worldly pleasures and desires.

35. I do not think it would be possible to prohibit the use of ganja and bhang. People would most certainly do their utmost to get the drugs by any means. Illicit possession is not very impossible, seeing that the plant is home-grown, and might easily be cultivated in enclosures about houses. If stringent measures of prohibition were adopted, there would be great discontent, as users of the drugs cannot well do without them. Prohibition could not be easily enforced, and, if enforced, those who are in the habit of using these stimulants would certainly try to obtain a substitute for them, and the consequence would be a resort to alcoholic stimulants, which are within easy reach of the people on account of the number of liquor shops in localities, towns, and villages. The using of liquor is socially and religiously prohibited, and it would at first be stealthily consumed; but sometimes exposure would follow, which would cause much dissatisfaction.

36. Natives with imperfect English education have begun to discard old beneficial usages, and, in imitation of the worst habits of Europeans, pride themselves in mistaken advanced views by using liquor, looking with disdain on the some what crude vegetable preparation of bhang. Many have been the premature decays of life and intellect on this account.

39. The smoking of a preparation of the hemp plant is not a less injurious form of consumption. Bhang is seldom or never known to be drunk in moderation with injurious effects. An overdose of bhang will simply cause a man to lie down, to experience a whirling sensation, to vomit, and to dream. A little acid acts as an antidote, or sometimes a good dose of milk and ghi is an effectual cure. The individual is none the worse afterwards for his indiscretion. Excessive ganja smoking is bad and injurious; it weakens the nerves.

40. The use of these drugs has been prescribed, on account of their medicinal qualities, by the schools of native doctors. Madanpal and Nighanta have stated the properties and uses of these drugs in their medical books, as follows:—Bitter in taste, destroys cough, helps digestion, checks diarrhœa, induces sleep, and increases appetite. Rajnighanta says that it increases sexual desires and brings pleasure in sexual intercourse. It gives vigour and strength, makes a man talkative, checks diarrhœa, increases appetite, and helps digestion. Sodal says that it increases appetite, helps digestion, checks diarrhœa, induces sleep, and increases sexual desires; it destroys cough. Bhawmishra and Bhauprakash agree with Madanpal. Sarangdhar recommends bhang drink or powder in diarrhœa and to induce sleep. Besides the abovementioned authorities there are many others.

41. The moderate use of bhang is beneficial as a digestive; it gives staying-power and alleviates fatigue. It prevents disease, and is known to prevent fever. Brahmins and banias use bhang as a food accessory. People in the mufussal use it to prevent attacks of fever.

43. Moderate consumers of bhang are not offensive to their neighbours.

44. The immediate effect of the moderate use of bhang on the habitual consumer is to refresh him and make him feel cheerful. He does not become intoxicated. His appetite is increased. The duration of the effect greatly depends on the constitution; it may be said to last from four to five hours. The habitual ganja smoker is rather worse if kept without his usual allowances of the drug.

45. No, as regards the moderate consumption of bhang.

46. The excessive habitual use of bhang produces noxious effects, physical, mental, and moral. It impairs the constitution and moral sense, induces laziness, and produces constipation. It produces permanent insanity. The excessive habitual use of ganja is more injurious than in the case of bhang. It produces also bronchitis and asthma.

47. The habitual moderate use of hemp drugs does not appear to affect in any way the children of consumers so far as I know.

48. I am not sure whether it does or does not.

49 and 50. They are used as an aphrodisiac. I do not know if prostitutes use them for this purpose. If so used they would be injurious. Excessive use of these drugs as an aphrodisiac would cause impotence.

55. I have heard of a few cases in which criminals have used these drugs to stupefy their victims to further their designs; but I am not sure that there was not an admixture of other drugs in these cases. Stupefaction can be induced by an excess use of these drugs.

56. The effects are not modified by the admixtures used ordinarily.

62. The cultivation of the hemp plant for the production of bhang need not be controlled at all. The moderate use of bhang is decidedly beneficial; and injurious consequences are only felt by those who are habitual excessive consumers, and after they have continued the habit to a very advanced age.

65. In my opinion bhang is taxed unnecessarily. It is a mild stimulant, and a comparison of it with any other intoxicant cannot be made.

67. I have said that the tax is unnecessary. I think it also unreasonable. In India, in the face of an ever-increasing and exacting land tax, every product of the land, whether it be an article of life or an article of luxury, has been taxed, to the great burden of the poor classes. When, after bearing a land tax, the article is subjected to a special tax, the consumer is taxed twice. In the case of bhang, although it is not a necessity, it is a harmless source of enjoyment and relief

which often serves the consumer in ill-health as a valuable medicine, or prevents him from getting ill. Bhang is chiefly used by poor people, and to them every pie has its value. The tax, though not felt by the rich, is a burden on the poor.

68. In the city of Bombay there are licensed shops where bhang is prepared and consumed on the premises. The shop generally is in a small room on the road side, the furniture consisting of a mat, two or three lotas, and a stone slab on which the bhang leaves are made into a paste before the drink is prepared. The shopkeeper earns but sufficient for his maintenance. So far as I know, these shops are not known to have any ill name attached to them. The customers at these shops are not noisy or quarrelsome, and are seldom known to cause inconvenience to any one. These shops are not places resorted to by bad characters to concoct their plans; but this to some extent depends on the locality in which the shop is situated.

69. Local public opinion ought to be consulted. It would be beneficial to the people.

Oral evidence.

Question 46.—I have seen instances in Kathiawar of men becoming insane through excessive use of ganja. I know no cases of insanity caused by bhang. I have seen this madness among sadhus and bairagis. Respectable people do not use ganja. I have heard that sadhus mix dhatura with their ganja, but I have not much experience of the use of ganja. It is the seeds of dhatura which are generally used, but sometimes the leaves and also the roots are used. I cannot name any men, but I have seen many bairagis suffering from bronchitis and asthma, who were consumers of ganja. I cannot say definitely that the diseases were caused by the use of ganja.

Question 62.—The injurious effects here attributed to prolonged excessive use of bhang will also follow on similar use of ganja. Injurious effects can be seen even in a boy from one excessive dose of bhang, but these effects do not last long—not more than 24 hours. The effects of continuous use by the old are worse than the effects of occasional excessive use by the young. The prevalence of insanity from the drugs among young men is contrary to my experience, but I have little experience of the excessive use of ganja.

---

101. *Evidence of* VITHALDAS PRANJIWANDASS, *Bhunksali Landlord and Trader, late Intoxicating Drugs Farmer, Bombay.*

1. My experience as intoxicating drugs farmer during a period of ten years.

2. Bhang is known as bhang, subji and maya. Charas is known as charas. Ganja is known as ganja. The ganja consumed here is flat ganja; round ganja is unknown. Chur or broken ganja is known here as garda.

7. There is no cultivation of the hemp plant in the island of Bombay. I am aware there is cultivation of the hemp plant in the districts of Ahmednagar and Satara for (*a*) and (*d*), and cultivation of the hemp plant in the districts of Surat and Broach for (*c*).

14. I know that ganja and bhang are prepared in the Bombay presidency. Ganja is prepared in the Ahmednagar and Satara districts, and bhang in the Surat and Broach districts.

18. Ganja, charas and bhang do deteriorate by keeping; they would quite lose their narcotic properties in time. Ganja with care will keep good for one year; the second year it will lose some of its properties; the third year it will lose more of its properties; and the fourth year it will be useless for sale. This statement holds good in the case of charas and bhang also. I attribute the main cause of deterioration to humidity and damp. I always used a store-room with only one door and no windows. The store-room was paved with stone, on the flooring I placed old gunny bags, and on the bags I stored the bales of ganja and bhang unopened, in the condition in which they were received from the districts. The bales were stacked one above the other. Charas I kept in the packages in the condition in which they were received, storing the packages on planks. When a package was opened, the contents were at once removed and placed in a tin-lined box. Rats are very partial to hemp seed, and they must be kept out of the store-room or they will destroy the ganja.

19. Ganja and charas are only used in Bombay for smoking. Garda, that is broken ganja mixed with ganja, is also smoked. Garda is chiefly used for drinking, and in small quantities it is eaten. Garda is given to buffaloes and cows to increase their appetites, so that they may eat refuse grass and hay.

20. Ganja is smoked by Muhammadans and Hindus. Muhammadan labourers and fakirs smoke chiefly. Hindu sadhus smoke ganja largely, and other Hindus of different castes and callings smoke it more or less. The smoking of ganja by other than Muhammadans and Hindus is very exceptional.

Charas is smoked by Muhammadans and Hindus. The quantity smoked in Bombay is small. Among the Muhammadans it is smoked by Pathans and fakirs, chiefly by the former. Among the Hindus it is smoked by bawas and sadhus.

21. Flat ganja is used for smoking. A small quantity of garda mixed with flat ganja is also smoked. Round ganja is unknown here.

22. I obtained my supplies of charas from Amritsar and Lahore. I cannot say whether it was native or foreign charas.

23. So far as I know, bhang is never used for smoking.

24. Bhang is drunk by Muhammadans and Hindus. The Muhammadans who drink bhang are of the lower orders. Bhang is chiefly drunk by Hindus of the Surti Bania, Fattehpuria Marwari and Pardeshi castes. Only a few Deccani and Konkani Hindus drink bhang. Bhang is not largely eaten. The same Hindus who drink bhang also eat it. Bhang is sometimes given to horses with other spices as a tonic.

25. I believe the use of ganja and charas is slightly on the increase, and the use of bhang slightly decreasing.

28. As regards habitual moderate consumers—

PER DIEM.

	Quantity.	Cost.
Ganja	One tola	One anna to one anna and six pies.
Charas	One half tola	One anna and six pies to two annas.
Bhang	One tola	Three pies. The cost would be increased if the drink was made with different spices. Three pies would be the cost of the drink with black pepper, which is always used as an ingredient.
Garda	One tola	Two pies.

As regards habitual excessive consumers—

PER DIEM.

	Quantity.	Cost.
Ganja	Five tolas	Five to seven and a half annas.
Charas	Three tolas	Nine to twelve annas.
Bhang	Three to four tolas.	Nine pies to one anna. The cost would be increased if the drink was made with different spices. Nine pies to one anna would be the cost of the drink with black pepper, which is always used as an ingredient.
Garda	Three to four tolas.	Six to eight pies.

29. (*a*) With ganja, tobacco. With charas, tobacco. With bhang, mixed in water, black pepper, sugar and poppy seed. With garda, mixed in water, black pepper, sugar, and poppy seed.

(*b*) With ganja, gurako. It may be mentioned here that occasionally a smoker in place of using the ordinary earthen chillum will scoop out and make a pipe of a piece of sugarcane and smoke from this implement. With charas, gurako. With bhang, mixed in milk, almonds, cardamoms, saffron, cucumber seed, melon seed, rose buds and sugarcandy. With garda—garda is not used when a costly drink is prepared.

The poorer and habitual consumers use the articles mentioned under (*a*), and the well-to-do and occasional consumers the articles mentioned under (*b*). Dhatura is never used with these drugs in Bombay. It is said that by mixing tobacco or gurako with ganja and charas the smoke tastes better; it makes it stronger, and enables the smoker to expectorate any phlegm that may be in his throat or in his lungs. It is said that black pepper is always mixed with bhang to prevent pains in the stomach. The other ingredients are used to make the drink pleasant to the taste. These remarks also apply to garda.

I do not know of any preparation of bhang massala kept and sold for the purpose of being mixed with any hemp drugs. The articles above mentioned are the only ones known by me which are used in this way.

30. Ganja, charas and bhang are usually consumed in company with friends. It is unusual to consume these drugs in solitude. The consumption of these drugs is mainly confined to the male sex, and to persons aged from 20 to 40 years. Young people and old people are infrequent consumers of these drugs. It is most unusual for children to consume any of these drugs.

31. The habit of consuming these drugs is easily formed if the individual consorts with persons who use the drugs. There is some difficulty in breaking off the habit, though no bad effects physically follow if the habit is broken off. A man who desires to break off the habit can do so by not going into the company of persons using these drugs, and by occupying his mind and body. I know many instances in which persons have broken off the habit of using these drugs. There is a tendency in the case of these drugs for the moderate habit to develop into the excessive.

32. I do not know of any social or religious custom requiring an individual to consume any of these drugs. Bhang is daily offered to the god Dawooji at the temple at Bholeswar. I do not know whether this offering is essential to the worship of the god. The bhang, which is usually nicely made, is, after being offered to the god, consumed by the temple people and visitors. Bhang water is poured on Shiva linga on Mahi Shivaratra, and sometimes on other occasions also. I do not know whether the offering of bhang water is essential or not in the worship of Shiva. The custom of offering bhang to the god Dawooji might lead to the formation of the habit in an individual. It is customary among sadhus to smoke ganja, and for religious Hindus to give bawas ganja.

33. The consumption of these drugs is generally regarded as a bad habit. I think there is a public opinion in regard to the consumption of these drugs, and that that opinion is that the practice is a bad one. I think the consumption of these drugs in all the forms in which they are used is in disrepute. I do not know of any custom of worshipping the hemp plant by any sects of the people.

34. It would be a serious privation to consumers of the drugs to forego consumption in the first place; but after a time they would probably look on the deprivation as a blessing. In the case of sadhus it would be a serious privation to deprive them of these drugs, as they are the only comforts they enjoy in this world.

35. In the island of Bombay I think it would be feasible for Government to practically prohibit the use of these drugs; but I cannot form an opinion as regards places outside Bombay. If these drugs could be had, they would be consumed illicitly. Prohibition could only be enforced by prohibiting the cultivation of the hemp plant. Prohibition would at first occasion serious discontent among consumers. In my opinion such discontent would not amount to a political danger. I think that about half the number of consumers would take to alcoholic drinks and opium, and the other half would give up intoxicants.

36. I think that at the present time alcohol is to a small extent being substituted for these drugs. I attribute the causes to fashion and the labour necessary to prepare the hemp drug for consumption. These opinions are the results of my observations.

37. The only difference I know is that charas is very much stronger in intoxicating effects than ganja.

38. The intoxicating effects of flat ganja are very much greater than that of garda on the consumers.

39. The drinking of ganja or charas is more injurious than smoking these drugs. Ganja and charas are very strong, and by drinking them a man completely loses his senses for the time.

41. The moderate use of ganja and bhang produces an appetite for food, but constipates the bowels. This effect is produced both on the moderate habitual and moderate occasional consumer.

42. I consider the moderate use of these drugs to be harmful. Ganja produces headache and cough, and bhang pains in the stomach with constipation.

43. Moderate ganja and charas consumers are sometimes offensive to their neighbours by being noisy and abusive. Bhang drinkers are not offensive to their neighbours.

44. The immediate effect of the moderate use of ganja and charas on the habitual consumer is refreshing; they produce slight intoxication; they create an appetite; and the effect lasts for about one hour. The immediate after-effects is a feeling of lassitude and dulness. The want of subsequent gratification produces longing and uneasiness. As regards bhang, no immediate effect is produced. Intoxicating is produced after about one hour; the drinker feels refreshed; his appetite is sharpened, and the effect lasts about six hours. The after-effect is a slight lassitude. The want of subsequent gratification does produce a longing and uneasiness. The difference between bhang and garda is that the intoxicating effects of garda are greater than bhang.

45. The habitual moderate use of ganja and charas produces noxious physical, mental and moral effects on the consumer to some degree. It impairs the constitution in time. It injures the digestion and causes loss of appetite in time. It causes asthma in time. The habitual moderate use of bhang or garda does not produce ill-effects like the smoking of ganja and charas.

46. The habitual excessive use of all hemp drugs is bad and harmful. The excessive use produces noxious effects, physical, mental, and moral.

51 and 52. No large proportions of bad characters in Bombay are habitual moderate or habitual excessive consumers of hemp drugs.

53. I do not know myself of any cases in which unpremeditated crimes violent or otherwise have been caused by the excessive indulgence in hemp drugs. I have known of a few cases of quarrelling, where the persons abused and struck each other with their hands in the ganja-smoking shops. I have never heard or known of quarrels in the bhang shops.

54. I do not know of any cases in which criminals have made use of hemp drugs to fortify themselves to commit a premeditated act of violence or other crime.

55. I do not know of any cases in which criminals have stupefied their victims with hemp drugs with a view to further their design in the commission of a crime. I do not know if complete stupefaction can be induced by any hemp drug without admixture with some other drug.

---

102. *Evidence of* RAMCHANDRA KRISHNA KOTHAVALE, *Brahmin, Inamdur, Taluka Wai, in Satara District.*

1. Having been an inhabitant of the district and having had various opportunities of coming across people who are addicted to this vice and also knowing some of the cultivators of the hemp plant, I am to a certain extent in a position to record my experience before the Hemp Commission.

2. Yes; the definitions above defined tally with the varieties known here.

3. None in the district I have been living in. None to my knowledge.

4. By the very names given in this pamphlet of questions.

Yes; they do.

5. Dry climate, reddish black soil and ordinary rainfall are necessary to the growth of the wild hemp.

6. The growth of the wild hemp is somewhat scattered.

7. Yes; there is cultivation of hemp plant for production of ganja only in the district I live in. Hemp plant is cultivated in abundance in about ten villages in Khanapur taluka and in three villages in Khatav taluka and in isolated villages of Satara and Valva talukas. Lengre, Devikhind, Valat, Sangola and Bhad in Khanapur taluka are much famous for ganja.

8. There has been no large increase in the area under cultivation. In 1890-91 the area under cultivation amounted to about 41 acres of land.

9. *Kind of soil.*—Ganja is grown in well-irrigated garden land and does not thrive in dry crop land. The most suitable soil is the medium reddish black description. Such soil is generally assessed at from Rs. 3 to Rs. 7 per acre including water rate.

Rotation.—The crop to be successful cannot be grown in successive years. It should follow a previous year's crop of ground-nut, sugarcane, turmeric, chillies or garlic. It is found to suffer in quality when grown on land which in the previous year bears bajari, jowari, gram, wheat, or sweet potatoes.

Preparation of soil.—The land selected for the crop in this district is ploughed in the months of February and March, a 12-ox plough being generally employed. The clods are then broken up by a light plough. In the month of May the field is manured at the rate of 24 carts per acre of ordinary manure, the cost being about Rs. 12 per acre. The system of penning sheep in the field is also resorted to. The land is then again lightly ploughed in order that the manure may be well mixed with the land and any clods that remain are at the same time broken up. The land is then ready to receive the crop by the beginning of monsoon.

Seed.—The cultivators of this district like to get the seed from Ahmadnagar, as they say that crops grown from that seed are less liable to blight than crops grown from Satara seed. It is also said that the local seed produces an unusually large proportion of male plants called bhangera. The presence of male plants is distinctly injurious, and large detection and immediate removal of such plants form an important element in raising a successful crop.

Price of seed.—The average price of Ahmadnagar seed is one ser (capacity) per rupee, though it is sometimes twice as dear. The seed is spheri-

cal and about the size of *mug* seed. It is brought from Ahmadnagar traders.

Method of sowing.—The seed is sown with the usual three-drilled implement, only one drill of which, however, is used.

Time of sowing.—Sowing is performed in the months of July and August. In light soil, the sowing is performed somewhat earlier than in rich black soil.

Watering the crops.—When the rainfall has been timely and sufficient, only two waterings of the crop are required. In other cases the crop is watered three times at intervals of ten or twelve days, so arranged that the last watering takes place about fourteen days before harvesting.

10. In this district they are not a special class who grow hemp plant. They are mere ordinary cultivators or peasants.

11. Yes; formerly it used to be from the seeds of wild hemp plant; but of late the cultivators bring the seed from Ahmadnagar.

13. No; it is not restricted to any special locality or province. Anybody can cultivate, but all that he has to do is to obtain permission from the local authorities. No special condition of climate, soil, etc., is necessary for the cultivation of hemp plant.

14. Yes; the product of ganja is prepared and merely chur or round ganja is sometimes sold under the name of bhang. But real bhang known as putti is not grown or prepared in this district. Ganja is prepared where it is cultivated. The average yield per acre is given as about 18 or 20 country maunds or 520 lb.

15. The first process of preparing ganja is to cut off the tops of the plants with a bill hook and to throw them into receptacles placed ready, and to remove the leaves and small buds immediately below the top. The whole crop thus collected is carried to a place prepared for the purpose, and arranged in heaps and exposed to sun to dry. It is then trodden under foot by men. When crushed, it is turned over, and the underside is exposed to the sun and then again trodden; the process being repeated about five times a day for four days. The next process is that of winnowing, which removes loose leaves and dust which are laid aside for use as manure. The ganja is thus finally prepared for smoking.

16. Yes, it is generally prepared by the people in their houses. It can be prepared from the hemp plant sown with care. Simply charas is prepared from the wild hemp plant wherever grown.

17. By ordinary cultivators.

18. Yes; they do deteriorate by keeping. Ganja and bhang get stale and the rats spoil them. They do lose their effect in time. It keeps good for six months only with ordinary care. The causes of deterioration are that the tops get stale and rotteh. They lose their active principle as well as the rats spoil them. Nothing but due care must be taken to prevent deterioration.

19. Yes; charas is used only for smoking, and ganja is used for smoking as well as for medicine. Charas is not much used here, not being easily available.

20. Some high caste Hindu Brahmins, kunbis, Muhammadans and bairagis generally smoke ganja. Nearly 5 per cent. is the proportion of the people who smoke ganja.

21. Flat ganja is preferred for smoking, but the poorer class use chur ganja for smoking.

22. No charas is used in this district.

23. Not to my knowledge the bhang is ever used for smoking.

24. Almost all classes of people drink bhang. The greater proportion of the people is at Benares Ayodya, Mathura, and in many other places in Northern India.

25. The vice of smoking ganja is on the increase as shown by the imports into my village, Want of control, idleness, and the inducement are the chief causes of the increase.

26. (*a*) Ten per cent. of the population.

(*b*) Five per cent. of the population.

27. Generally beggars who have given up the worldly cares and anxieties take to this vice and there are other people also from the middle class.

28. (*a*) One tola of ganja and bhang respectively is necessary per diem.

(*b*) Four tolas of ganja and bhang respectively are necessary per diem to habitual excessive consumers.

29. Ordinary tobacco is mixed with ganja for smoking by the people. Dhatura is mixed when a man intends to make another insensible for robbing of him. The object of mixing tobacco is to make ganja more palatable and less strong. Bhang is generally mixed with aniseed and black pepper. The ingredients of bhang massala are—aniseed, black pepper, rose petals, poppy seeds, almonds, coriander, sugar, cardamom, milk, etc.

30. Respectable persons make at home and drink bhang; so they smoke ganja also. But there are shops where anybody can get ready-made massala bhang to drink. The poor generally reduce the number of ingredients in the massala to reduce the cost and drink it merely with water, black pepper and aniseed. There are shops, or say houses, where ganja is smoked and in company of other men of the same vice. These places are strictly private.

These are generally used by males in adult life and not in old age—I mean bhang with massala. But ganja is smoked till death by people who are once given to it. It is not used by children except medically admixtured by hakims.

31. No; the habit of consuming is not easily formed. Drinking bhang is not difficult to break off, but smoking ganja can never be broken off. There is some tendency to go to excess from moderate, but not like alcohol, where one soon runs to excess.

32. *Social customs.*—If some friends meet another friends who are religious they make bhang with massala and drink.

Religious customs.—Bhang is generally prepared on one particular day called Maha Shivaratri, by Shaivas, and it is drunk because the god Shiva used to drink; and on the same day the so-prepared bhang is religiously sprinkled upon the idol of god Shiva. In the custom it is considered essential on this particular day only. It is generally temperate. It is not likely to lead to habit.

This all is about bhang, but ganja has neither religious nor social custom. It is merely vice that it is considered.

33. The consumption of bhang with massala is not regarded in any way as vice. There is no social or religious public opinion about drinking bhang, but on the contrary the religious opinion

in the cities of Benares, Ayodya and Mathura is in its favour. There is bad social public opinion about ganja-smokers, and they are looked down upon by society. It is equally so by religions. Ganja-smoking is generally in disrepute, and it is because those people who smoke ganja get violent and often lose their heads and generally given up to one thing. Bhang or hemp plant is worshipped by one sect only, and it is people from Northern India and Nepal.

34. Yes; ganja smokers, if prohibited, lose their flesh, get emaciated and often get mad. They cannot do anything, work, mental or physical. They can never do without ganja smoke. But if bhang-consumers are prohibited, it will not much affect their constitution; though for some time the want will be felt by them. But after a time they never feel for the prohibition. They get used. But it is not so with ganja. About 5 per cent. of the male population and 1½ per cent. of the female population smoke ganja.

35. Yes; it will be practicable to stop the use of any of these drugs, but it is not possible to consume the drug not illicitly. The prohibition can be enforced by making rules strict and getting the monopoly of the drug even from the Native States, just like alcohol and opium. It would cause discontent amongst the consumers, but it will not lead to any political danger. The prohibition would lead naturally to other stimulant drugs and to alcohol, but the alcohol would be expensive, and thus people would find difficult to use it, and so they will find out a cheaper drug, such as aconite, dhatura, arsenic, nux vomica seed, etc.

36. No; there is no reason for thinking that alcohol is now being substituted for any of these drugs; not only this, but it is said that a man accustomed to ganja smoke necessarily requires it though he takes alcohol.

37. The effects of charas smoking are different than those of ganja smoking. Charas is a stronger drug to smoke than ganja. It is in its effect very obnoxious to system, more so than ganja.

38. Flat ganja is generally used for smoking purposes. Round and chur ganja is used as bhang for drinking purposes. Pure bhang is not produced in this district. Chur is merely the mixture of the two varieties and is not, as such, pure. It is less strong than the latter varieties.

39. No; the smoking of ganja or charas is not less injurious than drinking bhang. Drinking bhang has not that nasty and injurious effect on the constitution as smoking ganja or charas. Smoking ganja or charas produces constant congestive irritation of the throat. This later on leads to affection of the lung. Drinking bhang does not do it.

40. Yes; the use of bhang is prescribed by Indian hakims and even by English practitioners for medical purposes in many diseases; and the use of ganja is made for cattle-diseases, and particularly for horses in massala as a tonic.

41. The moderate use of bhang, when drunk along with massala, is beneficial to one's constitution, but ganja or charas, when smoked, is never conducive to health in any way.

(*a*) It is not as food accessory, but it is used to give tone to digestive system.

(*b*) It does alleviate fatigue.

(*c*) It is used as a febrifuge in some malarial countries, but the use is not so well marked.

It is the lower classes who use the drug for the above purposes. The proportion is very small. Yes; it is the moderate habitual use only that I allude to.

42. Yes; the moderate use of bhang drunk along with massala is beneficial to the system. It does no harm, but on the contrary tones the digestive system and rest as a mild stimulant in general.

43. Yes; they are inoffensive to their neighbours; they never get violent or troublesome.

44. The moderate use has the following effects:—

(*a*) It acts as a stimulant.

(*b*) Exhilarates the spirit.

(*c*) Increases the appetite.

Yes; it is refreshing. It does not produce intoxication like that of alcohol. It does not allay hunger; on the contrary, increases hunger. The effects last from four to six hours. After-effects of moderate use are in fact none so to say. No; the want of subsequent gratification does not produce any longing or uneasiness, even in pretty larger doses.

45. No; the moderate use does not produce any noxious effects—physical, mental or moral. It does not impair the constitution in any way. No; it does not injure the digestion or cause loss of appetite. It does cause bronchitis, which may lead to asthma, and those who indulge too much in ganja smoke, and eat nothing for days, under the effect do get dysentery. Bhang does not produce any such effect. No; it does not impair the moral sense or induce laziness or habits of debauchery. No; it does not deaden the intellect or produce insanity.

46. The excessive indulgence in ganja smoke produces insanity. The insanity is of temporary character. It disappears if the smoking is put a stop to. There are typical symptoms such as monomania. Yes; the insanes do confess the use of the drug. Excessive drink of bhang even produces the above effects.

47. No; it does not appear to be hereditary habit; it does not affect the children in any way.

48. The habitual excessive use of ganja smoke does produce insanity in persons who smoke it, and at the same time their children are wanting in all the functions of the brain, and they are irritable and silly.

49. Yes; it is used as an aphrodisiac by males. Prostitutes do not use the drug for that purpose. The use for this purpose is more injurious than mere narcotic. When used as aphrodisiac for long time it produces impotence.

50. The excessive use of these drugs is not practised as an aphrodisiac. Excessive smoking of ganja or charas does produce impotence in the long run.

51. No; the habitual moderate consumers are not bad characters. Moderate consumers have no relation in general nor with any specific crime.

52. Excessive use of the ganja smoke makes the smoker violent, but he returns to perfect senses, and would not be tempted to commit a great crime. He would only harass his own people whom he thinks would not do him any harm or who are under his control. He fears the law even then.

53. No; excessive indulgence in any of these

drugs does not incite to unpremeditated crime, violent or otherwise. No case have I come across in which it has led to homicidal frenzy.

54. No; the criminals do not use the drug to fortify themselves to commit a premeditated act of violence or other crime as those who indulge in alcohol do.

55. No; the criminals do not use the drug to stupefy their victims. It does not produce complete stupefaction without admixture.

56. The effects of hemp used in moderation are modified by the massala. It renders the drug palatable and mild, and after-effects are not so bad as if the drug was used by itself. So with ganja when tobacco mixed before smoking modifies the action of the drug. It is never mixed with dhatura for personal consumption, but it is used to induce stupefaction of victims by criminals.

57. Ganja and charas are not eaten or drunk in this district. They are only smoked.

58 The present system of Excise Administration in respect of hemp drugs is not satisfactory. It is capable of improvement.

59. The only chance of improving the present system is to make rigid rules like country liquor and opium. Monopoly must be made and the rates of the sale must be fixed by Government and not by the contractor, who has the option of increasing the rates as he chooses. Government storehouses should be built, where it should be allowed to be stored up by the planter, and a strict watch kept on this will prevent the illicit sale of the drug.

60. The cultivation is not under sufficient control. Many people plant the tree for private consumption, and the cultivation of the plant is not forbidden, nor excess assessment is levied on the plantation. Licenses should be issued for such cultivation, and not mere permission granted as is now done.

61. Charas is not produced in this district, and nothing can be said to it.

62. The real bhang is not produced and cultivated in this district, but round ganja or chur is used and sold as bhang, which is more injurious than real bhang. It may be controlled as stated in answer to the question No. 60.

63. The present system of wholesale or retail vend of ganja and other hemp drugs is not satisfactory. Planters of those drugs have only to ask for permission from local authorities to plant the hemp tree, and before cutting down they have to obtain permission also; but there is no special duty for the cultivation of hemp. The hemp plant after it is cut down is stored up for drying; when it is ripe for market, it is sold to the contractor of the district, or anybody else, who is licensed to purchase at the rate the owner chooses. There is no control over the preparation. There is every chance of smuggling. The planter stores up the whole in his house and can keep away some out of the products, and sell the same where the market runs higher, illicitly. The rate of sale must be fixed by Government.

64. Export and import of these drugs from and into this province must be governed by more strict rules than now existing. There is so much of illicit sale now going on, and that can only be stopped by making uniform rates; and taxation should be made upon the quantity sold and not as now given to the contractor for particular fixed sum.

65. Bhang should be a little more taxed than ganja, and charas still more than either ganja or bhang. The taxation on alcohol may proportionately be increased; otherwise there will be more consumption of alcohol, and many consumers of ganja, bhang and charas would go in for alcohol.

69. The wishes of the people are never consulted or considered in any way before opening a shop. There is no necessity of local public opinion in opening such shops.

70. Yes; there are some grounds to think that there is smuggling going on. People in Native States grow the plants and sell the same to the shopkeepers privately from the British parts. There is no taxation or rules for growing the plant in Native States. In my opinion Government must take the whole and sole right over these narcotic drugs, even from the Native States. This will make the matter safer. The rate should be made uniform and thereby illicit sale will be put a stop to.

Oral evidence.

Question 1.—The written answers I have given are based upon my own knowledge.

Question 30.—There are no shops licensed for consumption on the premises in the district of Satara. The places where people meet to smoke, drink or gamble are called "akhadas," and the word has a somewhat disreputable meaning. If places were licensed for smoking and drinking of hemp drugs, they would not be frequented, and, if they were frequented, it would be worse than the present state of things for the morals of the people, because consumers would cease to feel shame, and the use of the drugs would be increased. There are no shops in my district where ready-made massala can be bought. I mentioned them because I had seen them in Benares.

Question 35.—The drugs I have named at the end of my answer are some intoxicating and some not. Nux vomica is intoxicating. I have seen a man who began to take one seed, and increased his dose to three seeds a day, and finally died. I do not know that aconite and arsenic are intoxicating. Other drugs that might be taken are opium and jaipal (croton ?). The effect of the latter is strongly purgative. I have known men to use these drugs as stimulants. I am only well acquainted with the use of nux vomica for the purpose. The seeds are soaked in cow's urine for seven days; then they are put seven days into cow-dung, after an interval of seven days during which they were drying. The seeds are then boiled in milk and dried seven times. The beginner takes one quarter of a seed, and I have known a man increase his dose to three seeds. A great many bairagis and fakirs visit Wai where I live. Dhatura is used by them, but not commonly. It is smoked with ganja. I never knew of the root or leaves of dhatura being used. I don't know why the process of treating nux vomica seeds I have described is adopted, but I suppose it is to make them less strong.

Question 46.—I have personally known two instances of temporary insanity caused by the hemp drugs, and one instance of a man who became permanently insane. I know the particulars of these cases well. The men are personally known to me. Two of them I have known for thirteen years, and one of them is dead. One case of permanent and one of temporary insanity occurred six or seven years ago, and one case of

temporary insanity occurred three years ago. They were all resident in my village. The permanent case was that of the son of a Brahmin landholder. He was about eighteen years old, and went to a party of ganja smokers composed entirely of Brahmins. They were well-to-do persons, not priests or mendicants. One of the party invited the boy. Though he frequented this company, the boy did not smoke for a whole week. He gradually acquired the habit, and, after indulging and increasing the habit for three years, he went mad. He has property, but wanders about, careless of everything. He still smokes in that company. I say he is mad because he neglects his property and his ablutions. He is sometimes coherent and sometimes incoherent. It is possible the boy was originally invited to join the company because he had means. His property has suffered since he joined the party. It has been mortgaged. The company get nothing from him but ganja. The company was composed of men from twenty-five to thirty-five years of age. They were none of them drinkers of liquor. They were not of loose or vicious habits. The company was composed of some fifteen men. The village contains about fifteen hundred inhabitants. The young man in question was very strong and healthy before he began smoking ganja. I knew his father, who was a man of good physique. His relations are strong men. None have gone insane. I don't remember the grand-parents. It is a family of good standing, and I know of no mad men in it. I can say that the company did not indulge in anything but ganja. Some of the company were well known to me. I never sat with them when they smoked. The drugs I have mentioned in answer 35 could have been procured by them. They smoked daily. There is a ganja shop in my village. The company used to smoke together in a temple or in one another's houses. They are all fairly well-to-do and of respectable families; but they are all regarded as disreputable. The houses were used by the young men for their meetings without the knowledge of their parents. These meetings were therefore, as far as possible, secret. Their families and their caste-fellows regarded their smoking with great disapprobation. I am personally acquainted with half of the company of smokers. They smoke in secret, and therefore their relations with their elders are not honest in that they involve concealment. They are none of them related to me. I know their habits, because I watched their actions. They have spoken to me about ganja, and therefore it is unlikely they have concealed other habits from me. The boy's father must have been dead when he first joined the company of smokers. He was a friend of my father. I am forty-two years of age. I have lived in my village for thirteen years, and I never saw the father during that time. I was away from my village ten years before that. The boy used to attend the village school. His uncle was in charge of him. His property has nearly all been mortgaged. About one-fourth has been mortgaged by his uncle or his elder brother. The uncle and brother were not ganja smokers. It must have been the boy's want of money that made them mortgage the property. The boy actually stole money from them. The boy was not a liquor drinker or frequenter of prostitutes. The answer I have given under 49 is what I have been told. It is said that the sons of well-to-do people begin by taking the drug for this purpose, and the use of it grows upon them until bad results eventually ensue. In the case under notice, the boy did not, as far I know, take the drug for this purpose. I did not know this young man better than the other members of the company. The bad repute of the company prevented my becoming intimate with them. A man would not necessarily confess all his habits, such as the frequenting of prostitutes, because he confessed the use of ganja. I possess little medical knowledge. The scientific language used in my answer 46 is borrowed from a doctor to whom I related my experiences. I don't know physic enough to state how insanity is caused or what its symptoms are. None of the company of smokers but the boy went mad. The other members of the company did not go to excess like the boy did. The madness came upon the boy gradually, and showed itself first by occasional neglect of his meals, until finally he became altogether careless of his food and everything else. One of the temporary cases went into the lunatic asylum. In that case bhang had been used to excess.

Question 48.—The want of intelligence I have mentioned has been noticed by myself in some five or six families. On my describing this to the doctor, he supplied the explanation that the children were wanting in all the functions of the brain. There are other silly children in the village. I cannot say if the silly children of the ganja smokers are more or less numerous than the other silly children.

Question 59.—The recommendations I have made in this answer are, I think, necessary to control the use of the drug. The maximum of lawful possession is, I am told, five tolas, and I think that is a proper amount. Taxation should be increased in order that price should be raised and consumption discouraged. The hemp drugs are taxed much lighter than alcohol. People will go to cheaper drugs before they go to alcohol. Alcohol should always be kept at a higher price than the hemp drugs. We have a religious objection to liquor, and therefore regard it as a worse habit than that of ganja. Excess in alcohol causes death more frequently than ganja does. I don't advocate total prohibition, because there is a natural desire for stimulant, and people will have it in some form or other.

Question 69.—I should be in favour of stopping the sale of the hemp drugs in my village; but if Government directs its efforts to reducing consumption gradually, I should be satisfied to leave the matter in its hands.

---

103. *Evidence of* Rev. D. O. Fox, *Minister, Methodist Episcopal Church, Poona.*

In answer to your question as to the effects of the use of ganja, permit me to state a case that has come under my own observation. In 1891, while preaching to the people a man came to me much interested about the story of the Gospel. We encouraged him and taught him the Christian truths. I noticed from time to time a strangeness about his conduct. After his baptism I saw him

often. I noticed more and more that there was something wrong about his physical condition that affected his mind. At times he was exceedingly restive. His eyes had a strange brightness and spittle ran from his mouth. I advised him to visit the hospital. I went with him in order to know about his case. Dr. McConaghy, the Civil Surgeon, examined him but could not determine what his trouble was. He gave him some medicine and asked me to bring him the next day. The next morning he again examined him and was still uncertain as to his difficulty. He gave the man medicine and requested him to come again the next day. That day I heard that the man used ganja. When we met the doctor the next day, I told him that the man smoked ganja. He replied with emphasis—"That is what ails him. I had not thought of that." I said—"The man promises to give up the habit entirely." The doctor said, "Unless you keep him under your eye constantly he will never stop, and in time he will land in the lunatic asylum." Over a year and a half has passed since this occurred. The man has continued to use the drug. He is often violent, has quarrels and fights with his neighbours. He is considered a nuisance in the community. Since I first knew him he has steadily failed both physically and mentally. He seems to be fulfilling Dr. McConaghy's prophecy. About eight months ago he gave up his employment in the Municipality where he had worked for many years. He now is without employment. He is unfit for work of any kind.

From all that I have seen of the effects of ganja, I am satisfied that it is injurious to both the body and the mind of the user.

---

104. *Evidence of* DESAIBHAI KALIDAS, *Brahmin (Khedaval), Government Pleader and Public Prosecutor, Kaira.*

1. Being a constant visitor at Dakore for the Darshana (worship) of Sri Ranchhodraiji Maharaj since the last thirty years, and being in charge of an *Annakshetra* there for the sick and helpless sadhus, bairagis, etc., and for all sorts of helpless people in their sickness for the last nineteen years, I had some opportunities of knowing the habits of sadhus, bairagis, religious mendicants, etc.; and after the receipt of the following questions in the last month I personally went to Dakore—a place where thousands of such pilgrims are ever to be found, to collect and verify the information given below. It consequently mainly refers to sadhus, etc., and other sorts of people who lead an ascetic life: wherever possible, information as to the habits of common people is also given. Chapters V and VI are the only ones dealt with.

19. Charas is used only for smoking. Ganja is used for smoking as well as for being chewed and eaten after washing it in water. Ganja when chewed and eaten is stronger in effect than when smoked. Consequently, when fire is not procurable, or when more intoxication is desired, ganja is chewed. There are very few people who use ganja like this. The generality uses it in smoking; ganja, instead of being smoked alone, is also smoked with layers of tobacco above and below. Charas is hardly obtainable in Gujarat; consequently it would not be far from truth to say that there are none in Gujarat addicted to charas smoking.

20. Those who smoke ganja are to be found in great numbers at centres of pilgrimages; and most of them are sadhus and bairagis and such other religious mendicants, who having left the world devote their life in pilgrimages and worship and meditation of God. Besides these, those who lead a vagabondish life and maintain themselves on the alms they get from Sadavrats are greatly addicted to ganja smoking. The three higher classes, Brahmans, Kshatriyas, and Vaishyas, look down upon these practices; and those who use ganja or charas are hated by the public. Among the agricultural classes of Gujarat there are not many who are given to ganja smoking. They form only a small number.

In Dakore almost all the sadhus, bairagis, jangams, nagdas, dwarkawashis, teets, nanakshais, etc., smoke ganja, and consequently a considerable portion of the male population of Dakore is also addicted to the same habit by the company and example of the above people, and in the secrecy of their resorts.

In Gujarat this habit is not to be seen far and wide. What little of it exists is to be found at the centres of pilgrimages, such as Dakore, Sidhapur, Chandod, Kadi, etc., and in towns and villages where there are places and akhadas of sadhus and bairagis, etc.; and it is from them that the habit radiates. The people of those villages and towns where here are more of such places, or where many such sadhus, etc., come and go, are greatly affected by this habit, and in proportion to their number they impart their contagion to the surrounding villages also.

This habit is the result of company. But the use of ganja is on the decrease in Gujarat owing to the spread of education, and the slow, but steady, growth of a healthy public opinion.

Native-made tobacco cigarettes are greatly in demand now-a-days, and that is the fashion of the time among the common people. Among the latter alcohol is also to some extent substituted among the lower grades of society.

N.B.—In answering the questions wherever "sadhus, etc.," or "sadhus, bairagis, etc.," or similar words are used, the following are meant to be included:—sadhus, bairagis, jangams, nagdas, dwarkawashis, ateets, nanakshai, and such other people who are generally designated by the people as sadhus, or bairagis or abdhoots.

Sanyasis, those referred to and explained in answer to question 24, are not included in the above class.

21. Three kinds of ganja are known in Gujarat as ascertained by me from the sadhus, etc., of Dakore—(1) gardo, (2) baluchar, and (3) lilavo. Baluchar is that in which the leaves are flattened and are with twigs. Lilavo is produced on the plant in the form of buds or flower tops. Their merit for the purpose of intoxication is in the order in which they are stated. In Gujarat only the lilavo kind of ganja is sold, and that is what is generally used in the province. Gardo and baluchar are hardly obtainable in Gujarat; and none of them is produced in the province. Charas is also not produced in the province. Charas, gardo, and baluchar are not drunk like bhang after being crushed and powdered. This would bring on soreness and inflammation of the throat. Conse-

quently it is the lilavo kind of ganja which is drunk like bhang. It is also eaten by chewing.

22. Charas, gardo, and baluchar are produced in Kashmir and Yarkand. They are used by people from that northern side of the country. Being considered capable of imparting great vigour and warmth to the body, the greater the severity of the winter and cold of the country, the greater is their use.

Charas, which is at the head of the intoxicants produced out of the hemp plant, is collected and prepared as follows:—When the hemp plant, grown on the land from which baluchar and gardo kind of ganja is produced, reaches the height of 5 feet, it is customary for men to put on a leather robe and move about in the field, whereby the gum-like sticky juice on the flowers gets attached to the leather robe. This juice is removed by means of a knife from off the robe, and is rolled up in the form of small pencil-like pieces. As much as is wanted for smoking is detached and smoked.

23. Bhang is never used for smoking, so far as my source of information goes.

24. As there is no objection to the use of bhang, it is capable of being used, and is in fact used, by those that have a taste for it from all the four classes—Brahmins, Kshatryas, Vaishyas, and Sudras. Bhang is greatly used in drinking in Kashi (Benares), Kashmir, Nepal, Mathura, Ajodhya, Hardwar, and Prayag. In Gujarat, people in Surat, Broach, and Baroda, also use it for drinking in the summer season as a cooling beverage.

The sadhus, etc., do not as a rule use bhang as they use ganja. A great portion of the sanyasis, those belonging to the fourth state intended for a Hindu householder, drink bhang. In Chandod and Karnali these live in great numbers.

25. Among the sadhus, bairagis, etc., the use of ganja and charas and that of bhang among the sanyasis is, so far as I am informed, the same. Ganja is most in favour with sadhus, etc. Among the common people in Gujarat the use of charas is not prevalent at all, and that of ganja is on the decrease—firstly, because public opinion is getting stronger against it owing to the influence and spread of education; and, secondly, because liquor shops having been opened far and wide over the country and enticingly located have to a great extent replaced the former use of ganja by the labouring and lower classes. The use of bhang is also on the decrease, because the higher classes that took no objection to its use as a refreshing and a mild intoxicating drink have begun to dislike it, it being against temperate habits, and not in consonance with the modern idea of refinement.

26. Charas being hardly obtainable in Gujarat, there are almost none among the sadhus, etc., in the province who use it. Ganja is almost universally used by all of their class; and all sadhus, etc., may be said to be habitual consumers, about 40 per cent. being excessive consumers. Bhang-drinking is not so much in existence among sadhus, bairagis, etc., as ganja-smoking. From the common people in Gujarat there might be found about 400 persons who are habitual moderate consumers of bhang as a drink. On this side of India there are hardly any who can be called habitual excessive consumers of it. As for occasional moderate consumers, their number is very large but varying, and many respectable people may be among the number.

27. As said above, ganja smokers are most of them sadhus, bairagis, ateets, etc. They are most of them non-Brahmins, who having left the world for one reason or another (whether of poverty, disinclination to undergo the toils of earning a livelihood, or from purely religious motives) take to this habit by the open practice of the class to which they belong.

The rest are from all classes, but those who take to this habit (of ganja-smoking in Gujarat) are generally leading a vagabondish life, who having no brains for useful pursuits, and having plenty of money and bad company, are avowed spendthrifts, or, being penniless and without employment, kill their time by this sort of indulgence in company of their well-to-do friends or sadhus, etc. Such people coming in connection with brothels of vice, or being given to loafing habits, take to this as a pastime or to drown their moral degradation. This class is daily decreasing.

Bhang drinkers belong to all the classes, high and low, but the number is going down. Many addicted to it begin by using it as a cooling beverage in the hot season, and by constant use in company become victims of it. In feasts and friendly or marriage dinner parties, it is customary to prepare a mild bhang drink for amusement and for being able to do full justice to the dinner expected.

Sanyasis use bhang both as a cooling drink and for the purpose of concentration in study and meditation.

A great portion of Shastris (Pandits) also drink bhang as a help to the memory and concentration.

The zaveris (goldsmiths, those who deal in gold, and jewels, and pearls, etc.) always take bhang in order to be able to accurately value their articles of trade.

29. Generally ganja is smoked alone by the sadhus, etc. Sometimes, however, tobacco is mixed with it.

(*b*) The yakuti of ganja is prepared in the following way:—Ganja is first washed in water and then dried; and it is then crushed into a fine powder. Honey and sugarcandy is then mixed with it; and then nutmegs, cardamom, leaves of *Laurus cassia*, musk, cloves, mace, *Thomea turpethium* (a medicinal root for removing constipation), long pepper, roots of piper are added on to the preparation as spices. This yakuti of ganja is used by wealthy people as a luxury for intoxicating purposes. In Baroda a considerable amount of people are to be found who resort to this luxury. It is used by people who do not like to smoke ganja as being socially degrading.

I am not aware of any preparation called bhang massala sold in the Gujarat markets for the purpose of being mixed with bhang or the other two products of the hemp plant; but with minor variations, according to the practice of the various provinces, certain spices are added to bhang when it is prepared for drinking purposes. Black pepper corn, dried rose leaves, and poppy seeds are always added after being crushed; and sugar, except sometimes with habitual drinkers, is also always added. For making a rich drink of it, pistachio nuts and the seeds of the tree called *Chirongia sapida* are also added to the preparation after being crushed. But a preparation called majum, prepared out of bhang, is sold in the bazars of Gujarat town. It is prepared as follows:

Bhang is washed with water and dried. It is then crushed into a fine powder and mixed with

milk. The latter is then turned into curds, and this when ready is churned like ordinary curds to take out butter and make ghi (clarified butter) out of it. Then chasni (syrup) of sugar or sugar-candy is prepared, chasni being the Gujarati name for sugar boiled in preparation for conserves or sweetmeats. The ghi prepared as above is then thrown into it, and along with it all the spices used in preparing the yakuti of ganja as mentioned above are added. This when allowed to cool down and cut into square or irregular pieces is the majum of bhang.

30. The use of all these three drugs is the result of company, and it always takes place in company. It is hardly practised in solitude, except in the case of sadhus and other people who are habitual excessive consumers; but in their case also now and then a company of smokers gathers together. In Gujarat I know of no females who use ganja or charas in any form. Charas being hardly in use here, it is only ganja which is also totally confined to the male sex. It is above the age of fifteen that among common people ganja smokers are to be found. Among sadhus, young men below this age might be found smoking ganja. Female sadhus and bairagis sometimes smoke ganja. Bhang as a drink is sometimes given to children above seven when in company of their male relations or friends. But that is rare and in very small quantity. Females sometimes take bhang as a drink during the hot season when offered by their male relations, but seldom of their own accord. The majum of bhang is sometimes used by uncared for or vagabond children above the age of ten, and perhaps by females; but that is very rare. Except the use of bhang before dinner parties and in the hot season, and by sanyasis, zaveris, shastris, and a few habitual consumers, the use of the other two drugs cannot be said to be prevalent in Gujarat to a considerable extent, except among the sadhus, etc., at centres of pilgrimages, and in their places and resorts wherever they be.

31. The habit of using bhang as a drink is not difficult to be formed. The drink preparation being delicious is liked, and may very soon grow into a habit. But the use of it for a day or two does not dispose a person to have it the next day. A long use of it does form the habit. Intoxicants when once formed into a habit are always difficult to break off, because when once habituated the person feels a sense of depression without the particular intoxicant used by him. But the difficulty does, indeed, differ in degree. Opium, for instance, is very difficult to leave off. Charas might come next, then ganja, and then bhang. The latter, however, can be left off when the habit is moderate without any great sense of depression. With a little more effort ganja can also be left off.

Yes; all these drugs when once habitually used in a moderate degree develop the habit; and when they are assimilated with the system, the person habituated must increase the dose in order to have the same amount of intoxication.

32. It is *not* customary in Gujarat to supply any of these drugs at the two important occasions of life, marriage and death, when friends and relatives assemble together. As said above, sometimes in marriage feasts some friends meet together and prepare the bhang drink; but that is hardly supplied by the host. Being taken by a select company, it is never excessive, but always temperate. But these are not the occasions when the use of bhang as a drink ever develops into a habit.

On the great Hindu holiday of Shivaratri, the followers of Shiva consider it to be an act of great merit to prepare the bhang drink and pour it over the *Shiv Ling* (the idol of Shiva), and then it is considered allowable and meritorious to drink it. Bhang taken as a drink is never injurious to the health if it is moderately used. To habitual moderate or excessive consumers of it it causes flatulency, but it is considered to be strengthening the semen virile.

33. Among the three higher classes—Brahmins, Kshatriyas, and Vaishyas of Gujarat—the use of ganja (and much more so of charas) is always looked down upon, and never favourably considered. The person using it is looked upon as vagabond and a scamp, and it is considered as a serious blot on his reputation. The majority of all the three classes heartily hate the use of ganja. Consequently, when any one belonging to these three classes smokes or otherwise uses ganja, he has to do it in secret, and is ashamed of it in public. Such is the public opinion on this side against the use of ganja; but if one openly smokes it, he does not thereby lose his caste, as in the case of liquor or wine drinking.

Among the agricultural classes also ganja smoking is to be found to a small degree only. On this side, even among the Sudras, ganja smoking is so unfavourably looked upon that one from that class also would consider it low breeding to use it in public. The use of ganja for smoking and other purposes is in disrepute in Gujarat, because it is, *firstly*, a stronger intoxicant than bhang, and all sorts of intoxicants are disallowed and looked down upon by the higher and healthy public opinion of the province; and, *secondly*, because smoking of anything in any form is always in disrepute with the Hindus. Among the sadhus, bairagis, etc., ganja smoking is openly practised for the beneficial effects which it produces, and which are congenial to the conditions of their order of life.

So far as I am aware of, the hemp plant is never worshipped by any class of people in Gujarat.

The use of bhang as a drink is never unfavourably regarded by the public, except where the habit is excessive. Bhang is generally in favour with the general public.

34. The use of bhang as a drink would not at all be difficult to leave off, it being a mild intoxicant. Only to the habitual excessive consumer it would require some exertion and strength of mind to overcome the habit. Ganja and charas being stronger intoxicants would require proportionately still greater exertion to leave off their use. But none of the three are, like opium, quite difficult to leave off, and none would involve serious privation to forego their use so far as the consumer is not a sadhu, bairagi, etc.

Almost all sadhus, bairagis, etc., use ganja for smoking purposes, and with them it would be a serious thing to forego its use; because being poor and always travelling, and living in open air without any warm clothing or any clothing to allay the effects of heat and cold, the conditions of their habit of life necessitate its use.

Bhang drinkers during the hot season form a considerable number, about 15 or 20 per cent., in Gujarat. In Northern India and at places such as Mathura, Benares, etc., its use is of course very great. Those who in Gujarat use it occa-

sionally on occasions of dinner parties and feasts are much fewer. Habitual drinkers of bhang all round the year cannot be more than 200 in the whole of Gujarat. If the number of zaveris (goldsmiths) and shastris who drink it, perhaps habitually, for brightening their perception and memory, be added, the whole number would stand at about 400 in the whole of Gujarat.

Ganja smokers other than sadhus, etc., cannot be more than 5 per cent. Charas is hardly to be had in Gujarat. Consequently, there is no appreciable number of men who smoke it.

35. It would neither be feasible nor advisable to totally prohibit the use of these drugs, because they are in that case sure to be consumed illicitly. And I am sure among the sadhus, bairagis, etc., the prohibition of ganja would occasion serious discontent, because besides being used as a pastime, it is looked upon as a necessity by the conditions of their order of life, and especially as curbing the carnal desires.

I cannot exactly say whether total prohibition of ganja would or would not cause political danger if it were extended to the whole of India. But I can say for Gujarat that the number of consumers is so small and ever changing—most of them being sadhus, etc., moving about the country—that no political danger is to be feared from a total prohibition of the use of ganja, though serious discontent cannot be avoided at such uncalled-for interference. But in the north of India, and all over the country, there is such a large portion of the population who are sadhus that these, having nothing at stake, and being reckless and easily irritable people, *it would not be politic to meddle with them.*

As a great portion of the ganja and charas consumers are sadhus, etc., they are not likely to take to alcoholic stimulants, these being forbidden by the religion and their order. A great portion of those from the common people have already taken to alcohol, the lower classes who live upon manual labour. Those who are habitual bhang drinkers are also not likely to have recourse to alcoholic stimulants if the use of bhang be prohibited. Most of the bhang drinkers being taken from the good and respectable classes, they are, as said above, not likely to take to alcohol. But the remaining people who use it for intoxication are likely to migrate to alcoholic use, and I am able to say that some already have.

36. Yes; the liquor shops having been too temptingly located without any exercise of the right of local option, alcohol has been of late to a great extent substituted for bhang and ganja and opium. This substitution is due—

1stly—to the too tempting location of the shops in all the parts of towns, this being due to the present farming system whereby it is the interest of the contractor to raise as much revenue and as much profit by his business as possible;

2ndly—the want of local option, whereby the wishes of the inhabitants of the neighbourhood are disregarded as to the location of the shops; and

3rdly—the article being sold ready-made, requiring no accompaniments or paraphernalia as bhang, ganja, or charas would do, and being for the above two reasons ready at hand, is preferred to both of these.

As for the proof of the substitution of alcohol for these drugs among the common people, the increase in the revenue derived from alcoholic stimulants is a sure indication of this and of nothing else.

37. The difference in the effects of charas from ganja smoking, so far as I have been able to ascertain from the sadhus, etc., is that while the former does not cause constipation of the bowels, the latter does so long as its effect lasts. If ganja is smoked just at the time when one is disposed to answer the call of nature, his bowels would be constipated so long as the effect would last; but after the intoxication has gone down they would move.

The smoking of lilavo ganja causes taja garmi, as the native doctors call it—a disposition to skin diseases. It also brings on headache.

Charas, garda, or baluchar smoking does not cause these just mentioned effects. It simply brings on a refreshing sort of rosy intoxication.

38. Except the effects of smoking lilavo ganja which are mentioned in the just preceding answer those of gardo and baluchar differ only in degree.

40. In cases of lohiwa (a disease of women of daily menstruating blood instead of at the menses time) the use of bhang is considered as a medicine, and it produces a beneficial effect. The strength and staying-power imparted for sexual purposes by bhang when used as a drink is also well-known.

41. (*a*) The moderate use of charas and ganja creates good appetite and acts as a food-digestive. It also increases strength of body.

The use of bhang as a drink also whets the appetite and acts as a food digestive, but so long as its effect continues.

Both the moderate habitual and the moderate occasional use produce the same effect in the case of the drugs; the latter on account of being not assimilated with the system as a habit, being in degree more effective than the former.

(*b*) Charas and ganja, in proportion to their respective intoxicating power, keep great warmth in the body in cold season and countries; owing to their use, cold does not affect the body; the effects of sleeplessness and fatigue are counteracted and idleness is removed. Sadhus, bairagis, etc., use these two drugs more than any other because by their help they are enabled to live and lie in open air in severe weather without anything to spread or cover their body, and because they can safely bathe with cold water in any weather without feeling cold or shiver. For these effects the moderate habitual use of the drugs is necessary.

(*d*) The habitual moderate use of charas and ganja removes moodiness, keeps the mind cheerful, enables full concentration of mind in their worship and prayers, weakens and destroys the semen virile, and thereby deadens sexual desires—the most necessary desideratum for sadhus, etc.—makes the body vigorous and energetic, and increases courage and promotes the power of sufferance.

Charas and ganja are used by sadhus, bairagis, etc., for these purposes, so that they may be able to worship God with concentration without any fatigue and the effects of exposure, etc.

The sanyasis use bhang, but never ganja or charas, for the purpose of concentration in study and meditation.

43. The sadhus, etc., use these drugs in order to be able to bear with cheerfulness the toils and programme of their order of life; consequently they are necessarily inoffensive to the public at large, and the moderate consumers of these drugs.

taken from the common people are also inoffensive to their neighbours. The moderate use of these drugs never tends to make the consumer troublesome and offensive to his neighbourhood.

44. The immediate effect of the moderate use of all the three drugs on the habitual consumer is indeed refreshing. Being habitual, it does not produce intoxication, but it infuses vigour and strength in the system. It would never allay hunger, but would whet appetite and help digestion. Comparatively the effect of bhang lasts for a longer time than that of ganja. So long as the effect of bhang continues, it acts as a digestive, but after it has gone down it produces windiness.

The use of charas and ganja necessitates the use of milk, sugar or sugarcandy, and ghi (clarified butter), for without them health would be undermined. But if they are taken, strength of body would increase. Similarly, if proper food be not taken, health would be seriously undermined, and blood would consume away. Those who use these two drugs like very much to eat sweetmeats, and believe that without the latter the body would be wasted away.

45. The moderate habitual use of charas or ganja makes the consumer easily irritable and impatient of contradiction. It also impairs his virile powers seriously. The use of bhang, on the contrary, makes the consumer of a very quiet and considerate disposition, and his virile powers get stronger.

As said above, ganja and charas impair and undermine the health if proper food be not taken after their use. The food should be necessarily cooling in order to counteract the effects of these drugs. Ganja and charas do neither injure digestion nor cause loss of appetite, but, on the contrary, whet it. Bhang, so long as its effect continues, creates appetite, but after it is over it produces flatulency and loss of appetite.

46. The habitual excessive use of charas and ganja totally destroys the virile powers and makes the mind irritable and defiant at the least provocation. Ganja causes strong constipation of the bowels.

47. I can say that even the moderate habitual use of charas or ganja produces certain permanent effects on the system of the children. The child becomes irritable and constipative; its eyes get weak; the growth of hair on the head is very small; it does not grow vigorous, and its limbs do not develop so much. The form remains diminutive.

48. The habitual excessive use of ganja or charas produces similar effects in a proportionately greater degree. But in both these cases, if proper and cooling food be taken, the effects are counteracted.

49. As has been more than once incidentally stated in answers to some previous questions, the effect of ganja and charas tends to produce impotence; and greater the use, the greater the tendency to that end. Bhang strengthens the virile powers and makes the consumers disposed to it.

51. A good percentage of bad characters may be habitual consumers of ganja, moderate or excessive; but the use of this is not the cause of their committing crimes. Neither are all ganja and charas consumers criminal classes or bad characters, nor do all criminal classes or bad characters use them necessarily. Crime has no connection with the use of these drugs.

55. Sometimes I have heard of cases in which the smoking of ganja, or the drinking of bhang, or the eating of the majum of bhang, has been the preliminary, whereafter the victims of it were made to do things which in their consciousness they would never have done, *e.g.*, of signing a document detrimental to the signatory's interests, or the parting with of an ornament without knowing its consequences.

---

105. *Evidence of* Rao Bahadur Govindrao Ramchandra Garud, *Pleader Dhulia, Khandesh.*

1. From enquiries and general information.

2. The only products known in this district of the hemp plant are bhang (leaves of the plant) and ganja (the flowering top). The definitions given in question may be accepted for this district.

3. The hemp plant does not grow spontaneously in the district of which I have knowledge.

4. It is known by two names, *i.e.*, bhang and ganja as mentioned in answer No. 2. Yes; they refer to the same plant.

5. I have no personal information on the point.

6. It does not grow wild in this district, so I can give no information.

7. Yes, in some villages, particularly in the Jalgaon Taluka.

(*a*) For the production of ganja.

(*c*) For the use of bhang.

Reliable statistics of the area under cultivation can be obtained from the Collector of the district.

8. I hear there is no considerable increase or decrease in the area of cultivation.

10. There is no special class which cultivates hemp for narcotic properties; so far as I know it is cultivated by ordinary agriculturists.

11. It is not produced from the seed of wild hemp.

12. No, so for as I know.

13. Yes, it is restricted. It cannot be cultivated without a license from the Collector of the district.

14. Ganja and bhang. In the Jalgaon taluka to a small extent.

15. Cultivated hemp plant is used for smoking, eating and drinking, and prepared in the following methods:—

For smoking.—The flowering top of the plant is rubbed on hand and repeatedly washed with water, and then mixed with tobacco and smoked in the pipe.

For eating.—The pounded leaves are eaten without any admixture; but in rare cases sugar is mixed in it. Also sweet cakes are prepared from the decoction of the leaves called majum or yakuti.

For drinking.—The dry leaves of the plant are usually used for drinking purposes. They are reduced into paste and then mixed with water, and the solution thus prepared is strained through a cloth more than once, and when thus prepared, it

is used for drinking. The preparation is made strong or mild as required.

17. There is no particular class of people to whom the preparation of the hemp drug is restricted.

18. They do deteriorate, but do not quite lose their effects. They keep good for not more than a year. Weather causes deterioration. I cannot suggest any measures to prevent deterioration.

19. Ganja is used here only for smoking.

20. A small portion of the poorer classes smoke ganja. There is no particular locality to which the use is confined, but it is used more in places where the climate is damp and malarious.

21. Ganja prepared for smoking is generally flat and round.

22. Charas is not to be had here or used.

23. Bhang is not used for smoking in this district.

24. Marwadi and pardesi classes more generally eat and drink bhang, but even among them the proportion is not large. The use is not restricted to any particular locality or portion of the district.

25. I do not think the use of these drugs is on the increase.

26. In this district among the consumers of bhang and ganja the number of habitual moderate consumers is pretty large; (*c*) the number of occasional moderate consumers is not very large. (*d*) Occasional excessive consumers are also, I think, rare. (*b*) The number of habitual excessive consumers is very small.

27. I cannot give definite information on the point.

29. In the case of ganja tobacco is invariably mixed, and that of bhang the mixture is usually of pepper and some massala and sugar. Sometimes milk is also used to give flavour to the drink by well-to-do persons accustomed to drink bhang. Dhatura is very rarely used and only by excessive smokers of ganja with the object of getting more intoxicated. Yes, the bhang massala is sold by grocers. The more usual ingredients of bhang massala are as follows:—

(1) Badi shop (aniseed); (2) kasni; (3) gulab kali (rose buds); (4) miri, *i.e.*, kali miri (pepper); (5) badam (almond); (6) kakdi ka bij (cucumber seeds); (7) khaskhas (poppy seed); (8) vilayachi (cardamom); (9) sakar (sugar); (10) dudha (milk); (11) dhane (coriander seed).

When this massala is mixed with sugar, milk and bhang, it is called dudhiya.

30. The consumption of these drugs is practised more in company than in solitude. It is mainly confined to the male sex above the age of 25 or 30. It is not at all usual for children on this side of any classes to consume any of these drugs.

31. Not, except in the case of reckless persons when in the association of habitual consumers. It is not difficult to break off the habit, if not of a long standing. Necessarily the drugs have no tendency of increasing the habit, but is increased by the association of people habituated to the excessive use of the drugs.

32. The only custom known in this part of the district is that worshippers of the god Mahadev regard bhang as the favourite drug of that god and some use it devotionally on the Shivaratra and other Shiva fasting days. On the night of the Shivaratra holiday the worshippers of the god Mahadev, in worshipping the god, bathe the god with bhang and then use the liquid as a sacred drink. Yes; the use is considered sacred and essential by the devotees of Mahadev. To be temperate or excessive depends on the habit of consumers. If it is excessive, it would be injurious.

33. By the non-consumers it is not favourably regarded. There is no public opinion worth mentioning, either religious or social, in this part of the country in regard to the practice. I attribute the sentiment to the intoxicating properties of the drug. The worshipping of the hemp plant is not known in this part of the country.

34. Yes; it would, I think, be a serious privation, particularly in the case of ascetics, to forego the consumption, as it is a *sine qua non* of their itinerant life. The exact number of the class cannot be given, but it is a pretty large one.

35. (*a*) I think it would not be feasible. (*b*) Yes; it would be consumed illicitly. (*c*) By enacting a severe law prohibiting the cultivation, importation and sale of these drugs. (*d*) Yes, I think so. (*e*) Yes, not unlikely. (*f*) No, not to a perceptible extent, great many people such as bairagis and other ascetics, as well as men of several classes who now use these drugs, will never stoop to use alcoholic stimulants instead. Other drugs such as dhatura, bachanaga, etc., as well as opium will likely be resorted to.

36. No; I do not think.

38. I can say nothing.

39. I think smoking must rather be injurious than eating or drinking.

40. I do not think the native doctors prescribe the use of these drugs as a medicine. But the superior kind of bhang is used by native doctors as an ingredient in medicine used for diarrhœa and other bowel complaints. Yes; the drugs are used in the treatment of certain cattle-diseases. But bhang is often given in flour to fatigued horses and bullocks to refresh them, and it is given to cattle for increasing their appetite.

41. Yes. Bhang is considered to be so. Yes; according to native works on medicine bhang has febrifuge properties and is used in malarious and unhealthy tracts with such object. It is used as a sort of refresher which keeps spirit.

All classes use the drug, but their proportion is small in this part of the country. I refer to the moderate habitual use.

42. The moderate use of bhang is harmless. But the smoking of ganja is rather injurious to health.

43. Yes, they are inoffensive.

44. The effect of moderate use of these drugs is refreshing. Yes, it produces intoxication. It does not allay hunger. Yes, it creates appetite.

47. I don't think.

48. I don't think the excessive use of any of these drugs leads to an hereditary habit or in any way affects the children of the consumer.

53. I don't think and I am not aware of any such case.

54. I don't think.

58. I am not acquainted with the system.

61. Charas is produced, I hear, in this district.

68. There are no houses and shops, as far as I learn, in this district licensed for the sale of these drugs on the premises of which they are consumed.

69. No; wishes of the people are not consulted (not even for the vend of liquor) before a shop is opened. No, I don't think.

70. I think the duty is fully paid. I think not.

---

106. *Evidence of* Rao Bahadur Huchrao Achut Harihar, *Deshast Brahmin, Pleader, District Court, Belgaum.*

1. The answers to the questions below are framed from several investigations made by me with regard to the hemp drugs, my chief sources of information being the ganja contractor and the persons who habitually use the hemp drugs, and others.

I have had no sufficient and detailed information before I received these questions. I had some general information, by the light of which I made careful inquiries on the receipt of these questions.

2. The narcotic articles referred to in the questions are locally known by the following names: Ganja, bhang or subji, and charas.

The plant which produces these above things is locally known as the "ganja plant." Ganja plant does not grow in this district, but it is said that it grows in the Satara, Ahmednagar and some other districts. Ganja is not manufactured here. Only the flat ganja is imported here from some other districts, where it is grown and manufactured. Bhang is seldom used. Round ganja and charas are not at all used, nor are they sold here. But a very few people possess a very small quantity of charas obtained directly from the place where it is manufactured.

Ganja plant produces three things, *viz.*, ganja, charas and bhang. Ganja consists of dried flowering tops of female ganja plant. It is made flat by being trodden under foot and also pressing it under a heavy weight. Bhang consists of dried and broken leaves of the ganja plant. Charas consists of the sticky substance or resinous matter which sticks to the palm of the hand while removing the leaves of the ganja plant, and which substance is shaped into small pills.

3 to 6. I have no information.

7. No; but there is a species of hemp plant known as "ambada" in the Marathi language and "poondi" in Canarese, which is used for cordage or fibre; but it is quite different from the hemp plant which is referred to in the questions.

13. It is not cultivated in this district, but in the Satara, Ahmednagar and other districts. Its cultivation is not common to all districts. They say it does not require a heavy and constant rainfall, so its cultivation in some parts of this district is not impossible. But I cannot exactly say why its cultivation is totally neglected in this district.

14. No.

18. Ganja and bhang (don't know about charas) deteriorate by keeping long. Yes, it loses in quality in time. With ordinary care it will be kept good for about a year. The special measures to keep it from deterioration consist in exposing it to air and not allowing it to have any contact with dampness or water.

(1) Statistical return for the year 1892-93 showing the revenue of the whole district of Belgaum:—

	Talukas.	Rs.
1	Cantonment of Belgaum	355
1	Town of Belgaum	800
1	Taluka Chikodi	895
1	„ Athani	210
1	„ Gokak	315
1	„ Parasgad	160
1	„ Sampgaum	790
1	„ Khanapur	390
		3,905

(2) The revenue of the year 1893-94, Rs. 3,687.

19. Ganja is only used here for smoking. Charas is very rarely or not at all used.

20. Almost all the gosawis and bairagis and (some) professional songsters use ganja for smoking. Some lower classes of Hindus and Muhammadans also use it in temples, in their respective houses and in other places in company of their friends.

Proportion of smokers cannot be ascertained.

21. Flat ganja only is used here for smoking. "Chur" is used by the poorer classes.

22. Charas is not at all used here.

23. Bhang is never used for smoking in this district.

24. Bhang is prepared into "ghota" and used for drinking by some people in almost all the classes. Bhang is eaten in the form of "majum" tablets, which are prepared by the admixture of bhang, sugar and ghee. Proportion of the people cannot be ascertained.

25. The use of ganja and bhang is reported to have increased, because—

1stly—Population is increasing with rapid strides.

2ndly—These are comparatively cheap intoxicants.

3rdly—Contagious influence of the surroundings in the lower classes.

4thly—Want of education among the backward classes.

26. Cannot be ascertained.

28. Moderate consumers use one tola of ganja, whereas habitual excessive consumers use five tolas per diem. The price of a tola here is six pies.

29. Tobacco is ordinarily mixed with ganja by consumers and dhatura also is sometimes mixed by some people, the object being that the admixture produces more intoxication. Bhang massala is not sold here, but the massala consists of sugar, poppy seeds, owa, ginger, and cocoanut juice.

30. Extent of consumption in solitude or in company cannot be ascertained. It is consumed by the male sex above twelve years of age at any

stage of life. But the female sex also in lower classes, for instance, bowas and bairagis, use the drug.

31. The practice is easily formed by keeping company with habitual consumers. It is difficult to break off this habit. Moderate use of it has a tendency to develop into an excess.

32. Though the use of these drugs is forbidden by religion, it is a custom among some Hindus to take bhang in the form of ghota (drink) on some religious occasions, *viz.*, Durga Puja, Kojagar, Shivaratra, etc.

33. People of some position in this part of the country never use ganja or bhang. They regard it as a disrepute, and the society also looks down upon those who use these drugs with contempt. I am not aware of any custom of worshipping the ganja plant, as it is not at all cultivated here.

34. To forego the consumption of the drug would be a privation to the consumers. Ganja smoking and ghota drinking keep the consumers in humour and easy. Its absence would necessarily create uneasiness; the consumers would seem to miss an important thing and they would even rave like mad men; without it they always seem to labour under some anxiety; their digestive power is also greatly impaired; they grow weaker and weaker day by day. Probable number cannot be ascertained.

35. Regard being had to questions 40, 41 and 44, it would not be feasible to prohibit the total use of any of these drugs. If it is prohibited totally, there is every probability of its being consumed illicitly. Such prohibition should be enforced by raising taxation by legislative enactments. Such prohibition would for some time produce discontent amongst the consumers. Such discontents have not the slightest tendency to involve political danger of any sort. The total prohibition of ganja and bhang is likely to be followed by recourse to alcoholic stimulants.

36. Can't say.

37. Charas is not at all used here, but from information received I learn that it is more intoxicating than ganja smoking.

38. Only flat ganja is used here. Chur ganja is used by the poorer classes of consumers. The chur is less intoxicating than the flat ganja.

39. It is said that the smoking of ganja and charas are less injurious than eating ganja and drinking "ghota" of bhang.

40. Ganja is prescribed by native doctors for piles and fistula. It is also used for fomentations externally for the same diseases; also used as stimulant and tonic for cattle and also for cattle diseases with some admixtures.

41. Yes, the use of ganja and bhang is beneficial in its effects—

(*a*) as digestive;

(*b*) as alleviating fatigues and to give staying power under severe exertion or exposure;

(*c*) as preventive of disease in malarious and unhealthy tracts;

(*d*) it stops diarrhœa, relieves pains in the rectum. It is, as a smoke, also used to remove or relieve syphilitic bone pains.

Fakirs and bairagis, professional musicians and labouring classes smoke ganja and drink bhang moderately and habitually in cases (*a*), (*b*) and (*c*). Bawas and bairagis cook it with their meals even. In the case of (*d*) it is used by all classe occasionally.

42. It is said to be harmless as well as beneficial. Many persons have been taking it for a long time and are perfectly healthy.

43. Almost all of them are inoffensive.

44. Immediate effect exhilaration of spirits, attended with a peculiar kind of hallucination of a pleasing kind. Refreshing to a certain extent. Intoxication later on. It in the first place produces hunger. Yes; it creates appetite. Effect lasts for between two and four hours. The want of subsequent gratification produces longing and some uneasiness.

45. No.

46. Excessive habitual use of any of these drugs does impair the constitution; does injure the digestion and causes loss of appetite; produces asthma and dysentery; impairs the moral sense and induces laziness. It is not likely to produce habits of debauchery. It deadens the intellect and it is likely to produce insanity.

47. The habit does not seem to be hereditary. Surroundings do influence the children in contracting this habit. It does not affect the progeny of the moderate consumers.

48. Regard being had to the answer to question 46, there is a tendency to affect the children of the excessive consumers to a certain extent.

49. Yes; ganja and bhang are prescribed by native hakims and quacks as an aphrodisiac with other medicines. It is said to be used by prostitutes not exactly as an aphrodisiac; but it is given to young girls to prevent pain in the first coition. Not more injurious. Does not produce impotency.

51. Not in the majority of cases. The moderate use has nothing to do with any crimes. It in the form of "majum" is said to be used by thieves in drugging persons to facilitate theft; but it is very generally mixed with dhatura.

53. No.

54. I am not aware of any such cases.

55. Yes, to facilitate theft and rape. Complete stupefaction can be induced without admixtures if administered to those who are never in the habit of using ganja.

57. As far as my information goes, ganja and charas are not eaten in this district. I hear ganja mixed with sugar is eaten in the Bengal presidency.

58. The present system of Excise Administration seems, as far as I am aware, to be working well in this district, and hence no improvement appears to be necessary for the present.

60. Ganja is not produced in this district.

61. Charas is not produced in this district.

62. Hemp plant is not cultivated in this district.

63. At present the contractors make wholesale purchases of ganja and bhang and sell them in retail to the customers. The original quality of these drugs is not spoiled by these contractors by adulteration and other foul means. As long as this is the case, there seems no need of improvement in this direction. However, the maximum quantity of these drugs, much less than that allowed in Form A of the rules framed under the Abkari Act of 1878, which at a time should be

sold to the customers in retail, should, in view of discouraging excessive use, be fixed as in the case of opium and alcohol. The rates also should be regulated.

64. I see no objection to the existing Regulations governing the import of these drugs.

65. The present taxation on ganja and bhang is consistent and just with reference to each other, but as compared with other intoxicants (alcohol, etc.) it is very low. It would therefore be expedient to raise the present taxation on the drugs. By so doing its wide use would be discouraged.

66. There should be no different rates of taxation on the three different kinds of ganja grown in Bengal and in different localities, because the equality of taxation is to be maintained, and the Government will not be put to trouble in investigating the different qualities of the different kinds of ganja.

67. As the consumers do not seem to murmur to pay the present tax, I see no objection to the present method of taxing ganja and bhang.

68. There are no such shops or houses here. But there should be such, and those too should be situated in markets and other public places.

69. At present the wishes of the people are not consulted before a shop is opened. Local opinion ought, I think, to be thus considered.

70. For the better administration of excise, and to remove all doubts of smuggling, it would be reasonable to purchase from the Native States their rights of selling ganja and bhang by giving them adequate compensation as in the case of toddy, etc.

---

107. *Evidence of* NARO DHAKADEO, *Brahmin, Pleader, Jalgaon, District Khandesh.*

1. I have had no special opportunities of obtaining information regarding the matters connected with hemp drugs. I have, however, framed the following answers from the experience of those who are engaged in producing ganja and who deal in it, and from local information.

2. As far as my knowledge goes about these things, I can safely answer that Dr. Prain's definitions can be accepted for this district, and they are not known by any other local names than those given by Dr. Prain.

3. I have the knowledge of the Khandesh district of the Bombay presidency, from which I can safely say that the hemp plant does not spontaneously grow in this district.

4. It is not known by any other name to the people of this district.

5. Narcotic wild hemp does not grow at all in this district. A kind of herb grows in the jungles and is known by the name wild hemp. It does not possess narcotic properties. It is used in medicines.

6. As wild hemp does not grow at all in this district, I am unable to supply any information regarding it.

7. Hemp is cultivated in Jalgaon and Sawada talukas of this district for the production of ganja and for the use as bhang to the extent of about 25 acres a year, and neither for the production of charas nor for its fibres, nor seeds. (The seed required for the production of ganja or bhang is imported from Khandwa.)

8. As the ganja vendors in this district import ganja from the Central Provinces and sell it here on account of its superior quality, a decrease has recently been caused in the area under such cultivation. About ten years ago the cultivation of ganja was prohibited in Central Provinces, when it was exported there from this district. The area then under such cultivation was about 200 acres. Now there is no such prohibition in those provinces.

9. In summer days the land is prepared for cultivation by ploughing and harrowing it. After the setting in of the monsoons and after two or three rainfalls the ganja seed is sown into the soil thus prepared by an implement of husbandry called wokhar, driven by two bullocks, to one end of which is attached a wooden pot through which the seed is dropped and thus sown in a regular line. These lines are made at the distance of two or two-and-half feet from each other by means of another wokhar driven by its side. Six days afterwards the ganja plants grow up. A month thenceforth the plants become so dense that it becomes necessary to remove some of them with a view to preserve the distance of three inches between each plaint. A week afterwards the leaves of all plants are removed, reserving only the topmost part, with leaves about six inches in length Then the examiner of ganja plant examines them and removes males if there be any. The examination is continued from week to week until the ganja crop is reaped. Generally this cultivation is made in rainy season, and in case of drought water from wells is used once in every week. Nearly six months after the date of sowing the harvest of the ganja crop commences.

10. The persons who cultivate hemp for its narcotic properties do not form a special class. They belong to the same class as other agriculturists.

11. There is wild hemp in this district, and so the plants cultivated for the production of ganja are not raised from its seed.

12. As there is no wild hemp in this district, I am unable to answer this question.

13. The cultivation of the hemp plant for ganja is not restricted in this district. It is cultivated only in Jalgaon and Sawada talukas. The ordinary rainfall in, and the climate of, this district are respectively sufficient for, and congenial to, the growth of these plants. The soil must be partly white and partly black. The cultivation of ganja is not impossible in any part of this district.

14. Refer to the answer to the question 7.

15. As there is no wild ganja in this district, no difference between the processes of preparation of wild and cultivated ganja can be given. The process of preparing the latter is as follows :—

Three different parts, *viz.*, (1) the tops of the twigs, (2) the twigs, cut off, and (3) the *nakhi* ganja taken out of the twigs of the hemp plant are separated and heaped apart from each other. These heaps are heated in the sun for an hour. They are afterwards trampled under foot. They are turned over and again exposed to the heat of

the sun and trampled. This process is repeated for three days, and the ganja gets ready. Nakhi ganja is reduced to chur, and the other two kinds get flat. The ganja thus prepared is used in this district for smoking only.

16. Bhang is not prepared by people in their houses. There is no wild ganja in this district, so we do not know whether bhang, ganja or charas is ever produced from the wild hemp.

17. The preparations of ganja and bhang are made by farmers.

18. Charas is not prepared in this district. Ganja deteriorates by keeping for one year after its preparation, whether ordinary care be taken or not. I am not aware of any measures to prevent deterioration. It quite loses its intoxicating properties after keeping for one year.

19. Charas is not prepared here. Ganja is used for smoking only. This use of it is prevalent in this district as well as throughout India. It is also used for medicinal purposes.

20. Almost all the gosavis, bairagis, fakirs, and others of the like class smoke ganja at their lodgings; but among other class of people the proportion is 1 or 2 per cent. As charas is not produced here, I cannot give any information about it.

21. Flat and round ganja are generally preferred for smoking. Chur is used for smoking generally by the poor.

23. Bhang is not used for smoking in this district.

24. Almost all the gosavis, bairagis, and others of the like class eat and drink bhang and also a few of the other classes.

25. The use of ganja and bhang is neither on the increase nor on the decrease.

28. In the case of the habitual moderate consumers the average allowance is 2 tolas per day, which costs 2 annas; and in others the allowance is 5 tolas, costing 5 annas.

29. Men who drink bhang ordinarily mix with it milk, sugar, rose buds, saffron, cardamoms, opium seeds, and pepper; because such mixed drink is tasteful and fragrant. And this is called "bhang massala." Dhatura is not so used.

30. The consumption of ganja and bhang is generally practised in company. Respectable and great men, if they have got this habit, practise it in solitude. It is mainly confined to the male sex. The children do not consume it in this district. It is not confined to any time of life.

32. In some parts of Northern India, in which the hot season is rigorous, males, females, and even children drink bhang moderately, simply as a means to lessen the effect of the season, and not owing to its narcotic properties. The occasional drinking of bhang in hot season does not lead to the formation of the habit nor produce injurious effect.

33. Respectable men of this district generally detest the practice of drinking bhang, much more that of smoking ganja. The consumption is held in disrepute on account of its narcotic injurious tendencies and not on the ground of any religious principles.

There is no custom of worshipping the hemp plant in this district.

34. It will be a serious privation to the habitual consumers to forego the consumption of the drug they use. They will be uneasy if they will not get it.

35. It will not be feasible to prohibit the use of any or all of these drugs. The drug will be consumed illicitly. To enforce prohibition will not be advisable. The prohibition is sure to occasion serious discontent among the consumers. Such discontent will not amount to political danger in this district. The prohibition will not be followed by recourse to alcoholic stimulants or other drugs. Alcoholic stimulants and other drugs will not serve its or their purpose.

36. There is no reason for thinking that alcohol is now being to a certain extent substituted for any of these drugs.

37. Charas is not smoked in this district, and therefore no answer can be given to this question.

38. Ganja, flat or round, produces more intoxication than "chur."

39. The smoking of any preparation of the hemp plant is more injurious than drinking or eating the same.

40. Native doctors use these drugs in medicines on account of their medicinal qualities. These drugs are also used in the treatment of cattle-disease.

41. Moderate use of bhang and ganja is beneficial in its effects—

(*a*) as a food digestive if mixed with other articles;

(*b*) to give staying-power under severe exertion or exposure, or to alleviate fatigue;

(*c*) as a preventive of disease in malarious and unhealthy tracts;

(*d*) to prevent diseases from dirty water.

42. The moderate use of these drugs is beneficial for those who get the habit; and I consider the moderate use of any of these drugs to be harmless, as intoxication produced from the use of these drugs is not so strong as in the case of alcohol.

43. Moderate consumers are inoffensive to their neighbours.

44. The habitual consumers of bhang and ganja get themselves refreshed immediately if they use these drugs moderately. They can give strength to them only who can get sufficient milk and ghee. They do not produce intoxication in habitual moderate consumers, but produce in those only who use it but seldom. It does not allay hunger, but increases appetite. The intoxication lasts for about three hours. Afterwards they are consumed again; and the want of subsequent gratification produces uneasiness.

45. The habitual moderate use of any of these drugs does not produce any noxious effects, physical, mental, or moral.

The constitution is somewhat impaired if milk and ghee are not taken in sufficient quantity; but if the man gets milk and ghee, his constitution becomes strong. It does not injure the digestion, nor cause loss of appetite, but, on the contrary, increases it. When they are not well digested, they cause asthma and not dysentery. It does neither impair generally the moral sense nor induce laziness or habits of immorality, nor produce debauchery. It does neither deaden the intellect nor produce insanity, except to a very small extent in those who cannot get substantial food. This insanity is likely to cease as soon as the habit of smoking ganja or drinking and eating bhang is given up. The symptoms of insanity may be re-induced by the use of the drugs after liberation from restraint. The insanes who have no recorded ganja history confess the use of the drugs.

I am of opinion from local information that the use of these drugs by persons suffering from mental anxiety or brain disease will not give them real relief, although it is popularly supposed that it alleviates pain to a certain extent. The insanity may often tend to indulgence in the use of hemp drug by a person who is deficient in self-control through weakened intellect.

46. The habitual excessive use of any of these drugs is very harmful. One becomes weak.

47. Use of any of these drugs does not appear to be a hereditary habit. It does not affect in any way the children of the moderate consumer.

48. Please refer to the answer to question 46.

49. The moderate use of any of these drugs is not practised as an aphrodisiac. Prostitutes do not use it for that purpose. The use of these drugs for this purpose is not more injurious than its use as an ordinary narcotic. The use of hemp does not tend to produce impotence.

50. The excessive use of any of these drugs is not beneficial to health. It is a danger to one's occupation. The habitual excessive consumer is always in the state of intoxication, and consequently unable to follow his ordinary pursuits.

51. There is no large proportion of bad characters of habitual moderate consumers of any of these drugs. The moderate use has no connection with crimes in general or with crime of any special character.

52. There is no benefit from using any of these drugs excessively. An immoderate consumer is always in the state of intoxication. That is a bar to his occupation and loss to his profit. The consumers spend large sums of money in buying these drugs, and consequently come to want.

53. The excessive indulgence in any of these drugs does not incite to unpremeditated crime, violent or otherwise. The man who uses the drugs sits silent or sleeps, and I don't know any case in which it has led to temporary homicidal frenzy.

54. These drugs are not used by criminals to fortify themselves to commit a premeditated act of violence or otherwise, because they do not create strength in them if used.

55. Criminals, in order to further their designs, induce their victims to partake of any of these drugs, and so stupefy them. Complete stupefaction can be induced by these drugs without admixture of any other substance in the case of those who are not habituated to smoke, eat or drink ganja or bhang.

56. Intoxication is produced in a greater degree when the hemp is used with dhatura seed, whether used moderately or excessively.

57. I do not know about charas, nor I know whether ganja is used for drinking or eating purposes.

58. The present system of excise administration in this district is well enough with respect to hemp drugs and does not require improvement.

60. Ganja is produced in this district. I think the cultivation of the ganja-bearing plant and the process of its preparation are sufficiently controlled, and the system requires no modification in any respect.

61. Charas is not produced in this district.

62. I think that the cultivation of the hemp plant for the production of bhang is sufficiently controlled.

63. I have no objection to the present system of (*a*) wholesale, (*b*) retail vend of (1) ganja, (2) bhang, or preparations of them.

64. I have no objections to the existing regulations governing the export and import of these drugs, or of their preparations from and into your province or their transport within the district.

65. The taxation of (1) ganja, (2) bhang, is in my opinion reasonable, and does not require any alteration. I do not know anything about charas.

66. In my opinion it is not necessary that there should be different rates of taxation for different kinds of ganja, because the different kinds of ganja are produced from the same plant, and no significant difference is noticed in their effects.

67. I have no objection to the present method of taxing (1) ganja, (2) bhang.

68. In this district shops are licensed for the sale of these drugs and not for consuming them there. And I think that such shops or houses should not be permitted for the latter purpose.

69. The wishes of the people are not consulted or considered in any way before a shop is opened in any locality, and measures are not taken for the purpose. Local public opinion should be considered on such occasion.

70. Ganja is not smuggled in this district.

---

108. *Evidence of* Daji Abaji Khare, *Honorary Secretary, Bombay Branch, East India Association, Bombay.*

Referring to the subject in connection with the hemp drugs, the Branch Association have no special objections to offer, but they respectfully observe that no liberal-minded people would ever apply to the Government for the entire prohibition of the use of hemp drugs or preparations made therefrom because they are injurious. It is true that hemp drugs and preparations made from these drugs are much more deleterious to health than opium, but notwithstanding, these drugs are in common use by a very large part of the native population of this country and to which some of them are attached. It is also true that these drugs have good qualities as well as bad.

The only good and wise measure, which our good Government should adopt for the benefit of the people, is to impose more stringent precautions and restrictions upon the sale of these drugs than they have on the sale of opium, and to increase the severity of the punishment for the adulteration of liquor and other beverages with hemp drugs.

109. *Evidence of* Sewak Lal Karsondas, *Secretary, Arya Samaj, Bombay.*

The Arya Samaj fully sympathises with the objects of the Commission referred to, as the principles and tenets of the Samaj enjoin on its members total abstinence from all kinds of intoxicating drugs.

The Samaj, however, is of opinion that any governmental action in the direction of further restricting the preparation or sale of the drugs will be productive of very little good. The Samaj believes that education of the masses is the only proper and effective remedy for correcting such baneful habits, and fears that any compulsion in this matter is likely to drive the consumers of these comparatively innocuous drugs to the use of more injurious intoxicants that are plentifully supplied to the people like the various preparations containing alcohol. The Samaj, therefore, prays that the Government, actuated as it seems to be in taking these steps by high moral motives, would be pleased to devise measures for the restriction of the sale of European liquor in India, which is perpetrating a great havoc on the morals and the physique of the Indian people.

The Samaj fervently hopes that the comparatively less injurious drugs of Indian origin may be left to themselves, until the strong hand of Government is able to check the rapidly growing diffusion of European liquor in India.

---

110. *Evidence of* Rao Bahadur Vishwanath Keshawa Joglekar, *Brahmin, Sowkar, Karajgi in Dharwar District.*

1. I have had no special opportunities of studying the question of hemp drugs. My desultory reading of the literature on the subject, my casual intercourse with the people using the drug, as well as the remarks made to me by others in conversations or observations noted by me whenever I came across persons affected by the over-indulgent use of the drug, are the only sources of the information contained in these replies.

2. Though I have once toured through parts of Northern India, I have confined my answers to the six districts of the Southern Division of the Bombay presidency, namely, Kolaba, Ratnagiri, Kanara, Bijapur, Belgaum and Dharwar, for the main reason that I can speak for them with greater confidence as to the accuracy of my statements than for any other portion of India.

All the varieties of ganja are more or less known in this part of India, but only two of them are sold, or in other words commonly used, *i.e.*, flat ganja and broken ganja; the latter is also called bhang. The definitions given by Dr. Prain accord with the description given by persons who during their long residence in Northern India were personally acquainted with the cultivation of hemp and the preparation of its numerous varieties for eating or drinking; but in these parts "chur," powdered ganja, is called bhang. It is used in the preparation of drinks and sweetmeats and not for smoking.

3. In none of the districts embraced in these replies does the hemp plant grow spontaneously, and the questions 4, 5 and 6 under this chapter require no answers.

7. Two varieties of hemp are more or less widely cultivated in the division for the sake of fibre. They are known as *taga* and *ambada*, the botanical equivalents respectively being "*Crotalaria juncea*," "*Hibiscus cannabinus*," and the approximate area of their cultivation from the latest published returns are as below:—

Name of the district.	Area in acres of cultivation of *taga*, "*Crotalaria juncea*."	Area in acres of cultivation of *ambada*, *Hibiscus cannabinus*."
Kolaba . . .	564	178
Ratnagiri . .	1,576	.....
Canara . . .	93	68
Bijapur . .	91	5,438
Belgaum . .	2,223	3,352
Dharwar . .	119	4,368

But the hemp plant which produces ganja bhang, etc., is only cultivated on a very small scale in the Collectorate of Bijapur and in the States of Jamkhindi and Jata.

9. The method of cultivation followed is not marked with any peculiarity. The only difficulty lies in weeding out the male plants and thus preventing the female kind from seeding. The scanty cultivation which exists at Bijapur appears to have increased from 33 gunthas in 1888-89 to 13 acres in 1892-93. This slight increase seems to have been fully sustained by a local demand. The district of Bijapur does not import much from outside, and what it imports is chiefly, if not solely, from the neighbouring State of Jata; it has no less than 33 retail shops licensed for the sale of ganja.

I personally visited the farm at Bijapur, in order to see with my own eyes the cultivation of hemp and also the process of the manufacture of ganja. The method of cultivation does not much differ from that of jowari. The soil is well ploughed some four times and levelled by means of harrow. It is at the time when the process of levelling is going on that manure is thrown over the soil. The preliminary process, I mean the pressing of the soil, is commenced generally in Phagun or Chait, March or April, and is completed about the end of Jesht, June. When the land is thus well prepared, the ganja seed is sown in the field by means of drill (kurgi), a sowing implement, the same that is used when sowing jowari, with the only difference that the two of the three holes of the drill are closed, and the third alone is kept open. This is done to allow more space between the rows of the crop. The sowing operation commences about the end of July or beginning of August. The seed, after it is sown, is covered under earth by means of Balgunti. After a week the off-shoots are found to appear over the surface of the ground. When the crops grow about one foot high, the grass is weeded out by hand, and later on, as it grows taller, the grass between the rows is removed by a grubber (yadikunti) about twice a month, until the crop is ready for harvesting. If the rains hold off and there is a long break, it sometimes becomes necessary to water the crop. It takes about four or five months for the crop to be ready for reaping, and the harvesting period is about the beginning of January. When the crop is fully grown up, the tallest plant may be found to measure about 6 or 7 feet.

10. Cultivators in Bijapur do not belong to any particular class.

11, 12 and 13. I have no answers to give to questions 11, 12 and 13.

14. The only product prepared in Bijapur and Jat is ganja broken and flat. Bhang as defined by Dr. Prain is not produced in Bijapur. There is nowhere a demand for it in the six collectorates I am writing about, and I have satisfied myself in more districts than one by personally enquiring at the retail shops that bhang as defined by Dr. Prain is never sold in these parts. The "chur," broken stuff, which sometimes passes under that name and which is used in the preparation of drinks, answers to the description of broken ganja and is sent herewith as a sample. What is, however, bought as bhang by consumers is simply "chur" or broken ganja.

The process beginning with the reaping of the crop to its final stage, when marketable ganja is produced, may be briefly described as follows:—

There being no wild hemp in any of these six districts, my account refers to the cultivated hemp from which ganja is produced.

The female plants commence to flower about the beginning of January; the more advanced among them bear flowers a little earlier. It is, however, about the middle of January when the ganja flowers attain maturity, a proof of which is to be found in the change of colour from green to brown and from the dropping of the leaves. The cultivator at this stage sells the standing crop or himself cuts it and manufactures ganja. Cutting is generally done in the morning. The crop is not cut down all at once. The most matured plants are selected, and the tops (ends) of the flowery branches are cut with a sickle. Those that remain below are plucked by hand. When the flowered twigs are thus separated from the plants, they are carried to the place, at no great distance, intended for treading. The place is somewhat hardened and cowdunged. Over this ground they spread dry leaves of the same plant all over. The flowered twigs are then placed in layers in square forms. This is done in the morning. In the afternoon, at about one o'clock, the men, after meal, return to the place, and then three to four among themselves are set treading and tramping over each square about 10 × 10 feet and about six inches deep.

This process continues for about three or four hours, the twigs being turned up and down at intervals. The stalks and the withered leaves are then removed. They leave the twigs on the same ground the whole night, unless they think it will rain at night. The process of treading is thus repeated for four days successively, and when the fifth turn is over the process is complete, when the flowers assume a flat shape. The stamping and treading is done with a view to force the small stipules and flowers to adhere to each other and form one mass. The resinous exudation on the ganja enables the flowers to form into one mass very effectually. In Bijapur only flat ganja is manufactured and no other kind.

The chur or broken ganja is not, however, the product of any particular or special preparation, but the result of the process of treading and trampling. When it is going on, portions of the flowers drop down broken, and such parts of it as cannot be pressed on the spikes and made to stick thereto are collected and packed separately. This is chur or broken ganja, which passes here under the name of bhang. The chur or broken ganja may also be said to be the powder or residue which is naturally accumulated at the bottom of ganja bags during conveyance.

I visited the place of manufacture at Bijapur on the 16th and 17th of the current month. When I visited the place, it was about 2 o'clock, and the process of treading and trampling the ganja flowers was going on. The process is continued in the sun and not in the shade.

The preparation of ganja for smoking does not require a detailed explanation. A few ganja pods are soaked in cold water for a few minutes. If they find any stalks or seeds, they separate them from the ganja. The pods thus soaked are placed on the left palm and rubbed hard with the right thumb, pouring water constantly. The consumers then squeeze out the stuff and mix ordinary tobacco with it, and put the mixture in the pipe and light it up. In case of the drug being used for drinking and eating, the pods are, as in the first instance, separated from all the impurities by soaking them in water, and then their extract is used in liquids or sweetmeats according to the taste of the consumers.

16. I have in some places in the Dharwar district seen hemp plants in private compounds. They can't be said to have grown wild, and if they are specially reared, it must be with special purpose.

17. The only preparations used in these parts are the flat and broken ganja. They are sold in the form in which they are imported except at Bijapur, where they are made by the cultivators who do not belong to any special class.

18. Both flat and broken ganja lose their aroma as well as their effect by long keeping. In the moist climate it loses its effect in the course of about two years almost entirely. If kept in a closed packet it may last in a damp climate for a year or a year and a half. In a dry climate like that of Bijapur it may last for two or three years. Exposure seems to me to be one of the principal causes of deterioration, and I can suggest no measures to prevent it. It has been commonly observed that coloured clothes, such as turbans, do not deteriorate in Poona by exposure. In the Konkan they are packed and placed in a heap of rice so as to be beyond the reach of moisture. But this notwithstanding, the colour loses its brightness directly it is taken out for use. It also gets spoiled in a damp climate much sooner than in a dry climate.

19. Smoking is the chiefest and therefore commonest use of ganja. Sweetmeats and liquids in various forms are prepared and used. The quantity of spice, sugar and milk will in each case depend upon the means of the persons using them. But poor people would often drink powdered ganja in a cup of sugarcane juice or in pure water with ordinary "massala" (spice) of "miri" (black pepper), and "baritep" (anise-seed), etc. They also add jagri to the liquid.

The most favourite drink of the well-to-do class of ganja users, as I found in Northern India (where they invariably use bhang for all drinking purposes) is "ghota" or dudhiya. The intoxicating power of this drink depends upon the quantities of the various ingredients put together and the length of time employed in oxidising the liquid. This is a favourite drink with rich and well-to do classes occasionally seeking relief, and is generally used during the summer months, when "Vedic" Brahmins assemble to repeat the

"mantras." The preparation is also used in a very diluted form in respectable society on the occasion of "Shivaratra," "Shimaga," or the "Kojagari," full moon night. The favourite haunts of ganja smokers are temples, "masjids" or "dargas." It is here that Hindus and Muhammadans or people of indifferent character can freely meet and smoke together. The wandering gangs of "bairagis" and "fakirs" also will be found not only themselves engaged in smoking, but offering the "hooka" to those frequent visitors amongst the poorer classes of people who hover about such places for the very purpose of smoking. There are no other public places or club-houses where ganja is smoked. Neighbours and friends may meet and smoke together without an appointment; but except on the few occasions when the so-called "ghota" or dudhiya is prepared, there are no parties held, and ganja, like tobacco, is smoked individually and not in company. Neighbours do meet at night and smoke, but this is not an invariable habit.

Charas is nowhere used in any of these six districts of the Southern Division, and so it is not available in any of the shops licensed to sell the intoxicating drugs. It is only ganja which is (either flat or chur) smoked or drunk or mixed in sweetmeats.

20. The consumption of ganja is not restricted to any particular class of people, but the bulk of the smokers will be found amongst the lower classes.

It is very difficult to state accurately what proportion of people smoke ganja and charas, as there are no statistics available on the subject. Much depends upon local peculiarity. The proportion of consumers to be met with in large towns and cities does not exist in villages. Again, while the Lingayats in the above Ghat districts are under a religious prohibition, the lower classes in the Konkan fearlessly take to alcohol. All circumstances considered, I am of opinion that of the hundred male adults using ganja or liquor only 5 per cent. or even less will be found to belong to the former class.

21. As already stated, flat and broken ganja are the two kinds preferred for smoking in this part. No other kinds are used.

22. No charas is used in this part.

23. Bhang properly so called is not consumed in this part.

24. Same as answer to question 23.

25. I have no reliable information to enable me to answer this question, even with approximate accuracy. However from what I have heard or seen, I am morally convinced that the use of ganja has not perceptibly increased. The slight increase observable in the area of cultivation or the imports or exports, etc., may be due partly to the increase in population and partly to greater accuracy of returns. It is as a matter of fact losing its place before the spread of alcohol. If it still exists on this side of India, its main cause is to be found in the comparative cheapness of the article for the labour gatherings at mills, factories and railway workshops. The hard work the labourers are put to, the consequent necessity for some relief, the comparative facility with which consumers of ganja can carry the drug with them, and the ease with which it can be smoked anywhere even on public roads are, amongst others, the principal causes which still obtain amongst some people a preference for ganja before liquor.

26. By far the larger number of ganja-smokers will be found to belong to the class (*a*), habitual consumers. It is very difficult to draw the line between moderate and immoderate men. Those who consume the drug for intoxication it brings about and not for its medicinal properties are, when once at it, generally immoderate. If a smoker has the means and the necessary time at his disposal, he will not place down the "hooka" or chillum until he is so intoxicated that he is unable to take care of himself.

Some people will be found to drink occasionally preparations of ganja, but there are no occasional moderate smokers, as smoking requires a habit which drinking does not.

27. As has been more than once told, all castes of Hindus, from Brahmins to Mahars, and all classes of Muhamadans will be found to contribute more or less to the number of ganja-consuming people. The habits of life or circumstances which mainly generate this vice, are a life of disappointment and dejection, a life of asceticism, a life of ease and affluence associated with habitual consumers of ganja, and a life used to a kind of labour which at the close of the day requires some stimulant to bring about relief to lighten the effects of the day's toil and to bring about a pleasurable forgetfulness.

28. Moderate consumers do not require more than two tolas of ganja per day, and the cost per diem in this case is believed to be less than half an anna; but in the case of the excessive consumers, leaving that of bairagis and gosavis, the quantity consumed varies from 4 to 6 tolas and the allowance per diem per consumer in such cases varies on account of the cheaper ingredients with which it is mixed between an anna and an anna and a half. This class of people are generally poor, but at labour gatherings and wandering gangs they generally smoke in company, each contributing one round, so that the aggregate expenses do not rise above half an anna.

29. Moderate ganja smokers never mix any other ingredients than tobacco with the ganja. Only excessive smokers, such as bairagis, fakirs, etc., who in order to strengthen the intoxicating properties admix dhatura and also kuchli (seed of nux vomica) and bachnag (roots of *Gloriosa superba*). This is not, however, done by consumers of the higher classes. When they prepare drinks they only mix spices made of badam (*Amygdalas communis*), bedana (dried grapes), ketar (saffron), khaskhas (poppy seeds), welchi (cardamom), jaiphal (nutmeg), sugarcandy, etc. The number of spices and their quantities mixed depend upon the means of the consumers.

30. I have already mentioned that ganja is smoked more often in solitude than in company. It is solely the drinks which are always used in company; so far as can be observed on this side, it is the male sex which consumes the drug. A few exceptions will be found in the class of courtesans. Even there they are few and far between. No children are ever found using any of these drugs.

31. I do not think that the habit of smoking ganja is so easily formed as that of drinking liquor. By itself, smoking is not attractive. Habit formed in the case of ganja is less difficult to break off than in the case of opium or liquor. This is because the intoxication brought on by ganja is milder and less durable than that produced by an overdose of opium, whisky or brandy, and therefore the habitual consumer of the drug will be less indisposed to give it up by

degrees than one addicted to the use of opium. Every intoxicant predisposes the consumer to run to excess; such a tendency is to be observed in the case of ganja smoking also. Ganja like tobacco is smoked by the consumer according to his convenience and not necessarily in company. The second, third, and fourth rounds which are inevitable in the case of parties or companies, do not exist, and in spite of the tendency to run to excess the aggregate result is moderate.

32. In the parts of which I am speaking there are no customs, social or religious, which necessitate the consumption of ganja.

33. The consumption of ganja is universally regarded with disfavour; if not contempt. It is true that there is no religious prohibition of it. On the contrary, from its mention in the Veda and "Brahmans" and the virtues attributed to it, its use would seem to find an encouragement.

It has been from time out of mind associated with that large class of ascetics and fakirs who avowedly use it, not for the sake of pleasure, but for enabling themselves to concentrate their mind on the worship of their favourite deity. This was at least the original purpose for which it began to be used. It still passes under the name of dyanwali. It is associated with god Shiva, one of the Hindu Triad, and, as a rule, the majority of those who practise yog philosophy from the old lines indulge in the use of ganja. Hindu religion, at any rate, may therefore be said to countenance the use of ganja. In the case of liquor, it lays down a hard rule of prohibition. Opium it does not so expressly prohibit. In society devotees of liquor are less feared or despised than those of ganja or opium. This may be due to the circumstance that ganja on account of its comparative cheapness and accessibility to the lower classes, is found associated with what may be described, as the dregs of society. Liquor, on the other hand, though as injurious, is more costly and is associated with the ruling and the superior race, and its scent and sight to which seventy-five years have familiarized the native races, have ceased to repel even orthodox persons.

But in the case of ganja, instead of prohibiting, religion does encourage its use by describing it in favourable terms, such as those mentioned below:—

Jaya—The conquering or that which overcomes all painful feelings;

Ananda—The joyous;

Chapala—The causer of unsteadiness;

Gagan kini—The noisy;

Harshini—The delight-giver;

Indrasana—The worthy food of Indra;

Ajaya—The invincible;

Matuli— } The wife of dhatura apple, which
Matulani— } is the most potent of narcotics;

Madini—The intoxicator;

And by its mention in the sacred writings such as Veda and Smriti (law), etc. But this notwithstanding, society does not yield to religion. In no respectable society at the present day will any person on any public occasion, whether it be religious or social, dare smoke in public without giving an insult, and without himself being liable to be expelled the place. Society on this side at least condemns it very strictly. The social opinion is, in fact, the reverse of religious teaching.

34. I think it will be a serious hardship to the various classes of persons who now consume ganja if they have to give it up. Leaving aside the class of bairagis, fakirs, gosavis, whose number, since the great famine of 1877, has been steadily declining, the labourers, the artisans and the wandering tribes exposed to climatical rigours can't afford to remain without something to make them forget the day's toil. If we would withdraw from them bhang or ganja, they will take to opium, or more probably to its formidable rival, the country or European liquor. Already 95 per cent. of either of these classes do use liquor, and it is only among the 5 per cent. that ganja still claims some of its devotees.

35. If the use of the drug is to be prohibited, it can only be provided for by penal legislation. But penal legislation will take a number of decades to make the prohibition real instead of nominal; compulsory legislation has nowhere succeeded, and will, in the case of ganja, lead to illicit practices, as it has done in every other case.

Government has effectually prohibited the manufacture of salt. It has effectively controlled the manufacture and the sale of liquor. It can therefore effectively prohibit the production of ganja. But if ganja or bhang do exist in one place or another, their illicit import and use it will be difficult to prevent effectually. A prohibition may gradually work its way, and in course of years the habit may altogether disappear. Of this the Hindu writings furnish remarkable proof. Liquor and flesh were at one time freely used by all the higher classes of Hindus. But there was a time when the reaction set in and for centuries the Brahmin society, as a whole, has never touched meat or liquor. This only shows that reforms on a large scale can be worked out in course of time. I am therefore of opinion that the prohibition of ganja can be ultimately enforced.

There will be some discontent occasioned by such prohibition. But as it is confined to a small class, it can't be serious, and political danger is out of question. As I have already stated, if the prohibition is confined to hemp and its preparation, it will only encourage the consumption of alcoholic stimulants, and in some places, like those in Central India, of opium also.

There is already an opinion freely expressed that the agitation against ganja originates with those who want to encourage the spread of alcohol If therefore the prohibition is confined to ganja alone, the discontent can't but be serious, and may, in that case, be a matter for consideration.

36. I do not think that there are any instances of ganja consumers taking to alcohol as a substitute. But alcohol being more widely distributed for sale and more accessible to all classes of people, a seeker after the stimulant goes first to the liquor shop, and then ganja ceases to have a chance. Practically, therefore, alcohol has been encroaching on the domains of ganja, and even if no prohibition were resorted to in the districts of which I am speaking, ganja would ere long cease to hold its own against alcohol.

37. As charas is not consumed in this part, none could tell precisely anything about the effect of its smoking, much less about the difference in effects of charas smoking and that of other drugs.

38. I have not come across any keen observer amongst the consumers of hemp who could state

the difference between the effects of the three different drugs, round ganja, flat ganja and chur or broken ganja. Some however say—I cannot myself say how far it is a truth—that the chur or broken ganja is held to be more powerful than either round or flat ganja, hence it may have a greater power of intoxication.

39. The use of drink of hemp would doubtless be more injurious than smoking; because drinking is always practised in company, and as a rule leads to excess. But its preparation is costly and is only arranged for in companies. A drink is not therefore very frequently resorted to. Smoking, on the other hand, is cheaper, more frequent, and pervades all the lower classes. Practically, therefore, it causes more havoc than drinking.

40. Ganja occupies an important place in the Pharmacopœia of the Hindus. Its qualities as described in one of their medical works are given below:—

Bhang, ganja and dhatura (seeds) are intoxicating, victorious and triumphant (over pain), extreme heat-producing, bilious and lulling, producing reluctance* to speak, and increases fire (of the stomach), *i.e.*, appetite.

Ganja is also rubbed over the tongues of the bullocks to sharpen their appetite. It is also mixed up with the "massala" prepared for horses.

It is sometimes administered in very small doses, diluted with sugarcandy, in order to induce sleep.

41. The moderate use of ganja, as the moderate use of liquor or nux vomica, is beneficial especially as digestive; its capacity for alleviating fatigue or sustaining a consumer under severe exertion or exposure is inconsiderable when it is taken in a small dose.

I am not aware whether it has ever proved of any use as an antidote to malaria. In the jungles of Kanara and its neighbourhood it is rarely used and liquor has been a great favourite. It must, however, be understood that it is only the occasional use of ganja in the form of a drink which is necessarily moderate, because the drink is indulged more as a form than as a necessity; but with the habitual consumer, "moderate" can only be used comparatively. A may be more moderate than B, and B than C; but the quantity consumed by A exceeds that which a man can consume with benefit to himself. It is therefore only in theory that one can speak of the habitual use of ganja as moderate, and the beneficial qualities attributed to the drug have rarely been realized.

42. The habitual use of the drugs is never harmless, because it is never moderate.

43. So far as I have seen, consumers of ganja even when they are immoderate are as a rule inoffensive to their neighbours. They may talk much and talk loudly, and may be of irritable temperament, but they are never dangerous neighbours, except when they have become insane.

44. With the habitual moderate consumers, ganja can hardly have any particular effect, except that of giving temporary satisfaction, just as in the case of tobacco, or snuff or tea, the man feels slightly refreshed. There is, however, one difference. There is a limit beyond which consumer of tobacco or snuff or tea does not go. In the case of ganja, each dose increases the desire for another. It does not allay hunger as food does, but ganja-consumers, when hungry, may feel slightly relieved if they smoke. Drink prepared with milk will, of course, afford substantial relief.

The use of ganja does sharpen appetite, and I am aware of instances where the ganja consumers eat recklessly, with a full belief in the efficacy of this drug to help speedy digestion.

The effect of smoking is believed to last two hours at the least. That of drinking ghota depends on the strength of the mixture and the quantity taken. It is notorious that few smokers will stand the temptation, if they have the means and the time to indulge in repeated doses.

But in the case of occasional consumer, the effects of smoking ganja are much different from those on the habitual smoker. The effects are: the tongue feels dry and there is a peculiar sensation of that organ being drawn down the throat. The body becomes warm, the eyes contract and there is a constant tendency to laughter. There is, as it were, a procession of incongruous and incoherent ideas, marching across the brain, one fancy dissipating the other in quick succession. The mucous membrane of the stomach becomes insensible, accompanied by an insatiable longing for food. Time becomes lengthened, a second is expanded into a minute, a quarter of an hour into an hour. The head gets confused and the smoker becomes dogmatic and argumentative. He is never violent; the smoke mounts to the head in five minutes. After an hour's sleep the individual generally gets up light and refreshed. Lamplight promotes and accelerates the action of the smoke.

The effects of ghota even in the case of an occasional drinker of it are more serious than when the drug is taken in the gaseous form. The action of the liquid and mixture is slower and culminates at the end of seven or eight hours according to the absorbing power of the stomach. Lamplight has the same effect on the drinker and smoker. The effects of ghota are of longer duration than those of smoking, though their nature is the same, varying only in intensity. Should there be any over-dose of ghota, the drinker hears strange noises, feels the limbs of his body torn and scattered in all directions, thinks he has no control over them, and at times is under the impression that a general dissolution of the body is coming on. He becomes sentimental, a little quarrelsome and peevish. There are amongst the general confusion of the brain, sudden and evanescent flashes of sensibleness accompanied by a persistent desire to impress upon the minds of his friends that he is in his senses. It is only after full twenty-four hours that the person regains a perfect command over his ordinary and moral thinking powers. The frame of mind in which a good dose of ghota leaves a person after twenty-four hours is one of melancholy and lassitude. When the moderate quantity of ghota which a novitiate ought to take is exceeded, the person at the height of its operation is sometimes known to weep in despair of life.

45. I am acquainted with a few cases of ganja consumers ultimately dying insane. None of them were in good circumstances.

A was at first a religious preacher (Haridas). He subsequently took to the profession of a singer (gawai); was possessed of more than ordinary intelligence; was extremely poor, but of an excellent moral character; he would rather starve than beg. The first symptom of his insanity that struck his friends was his excessive talk. Three months after he became mad. He was not under

* NOTE.—These are the effects of "moderate" use. Excessive talk always proceeds from immoderate use.

any medical treatment and died after about four months of complete lunacy. In this case, no one would have ever considered the man to be an immoderate consumer, and it was believed that it was because he was ill fed and insufficiently fed that the drug produced its evil results.

B. In this case the man was in Government service. He was a habitual smoker for fifteen years, and during all his time he never gave his superiors any reason to reprimand him. He also used occasionally to drink.

On the full moon night of Aswin, the well-known kojagari night, ghota, otherwise called dudhiya (*i.e.*, drink of ganja prepared with milk and sugar), was prepared. There was a party in which all but this man were persons who never smoked nor drank ganja and who had all consented to have the drink as a curiosity. They had, as is usual on this night, kept up throughout and drank each a cup more than once. The one man B alone drank about three cups at each time. At about 7 A.M., the man was off his brain; he continued to be so about eight months and had again a lucid interval of six months; he continued thus about for sixteen years and died at last of consumption. He used to smoke to the last. He was deprived of the indulgence when he was insane. The only important feature about him was that he was never dangerous even when he was stark mad. His wife, children, neighbours and friends were never afraid of him.

C was first a student in the school. He was the most clever and bright in his class. Everybody liked him. He made his progress up to the 5th Standard in the vernacular school. Unfortunately at the age of 18 he contracted the habit of ganja smoking. The effect of the drug was so speedy in this case that within a few months since his initiation he became completely mad. He was married, but he never cared for his wife and mother, and he never lived with them. The man who was once very intelligent, and in whom his relatives had good hopes, was found quite useless for his family. He did not care so much for the food as he did for the drug. He used to do the duties of water-carrier. When people employed him, they paid him some remuneration for his services. But he never demanded more than what he required for buying the drug for his consumption. He was never offensive. He continued mad till his death, about the age of 35.

D. Here the victim is a schoolmaster. He was led to the use of this accursed drug ganja by his association with the "Vedanti Club." They told him that he could never be able to contemplate the image of God unless he had a steady and undisturbed state of mind, and they recommended him their holy stuff as a sure means of concentration of mind. Evidently with the object of making himself incapable of being stirred by the worldly concerns, he began to use the stuff, the result of which was that he shortly appeared with all the signs of insanity. He is out of his service now.

I know of half a dozen more cases; in none of them was a man looked upon as dangerous.

If the use of alcohol, even when it is occasional is added to a habitual consumption of hemp drugs, insanity is almost certain.

47. I know of instances in which the father smoked and the son did not. But I have not come across instances on this side of India where ganja was habitually used for two or three generations. I cannot therefore offer any remarks on this question as to the transmission of the vice by heredity.

49. It is said that the drug is sometimes used as an aphrodisiac. I have not much faith in the assertion. A drug which, if moderately used, sharpens appetite and gives tone to one's health. But the drug has been a favourite with the class of people like bairagis and fakirs, whose object is the very reverse of vice. In these days, at least when every vernacular newspaper mentions about half a dozen patent medicines which are specially termed aphrodisiacs, I do not think the demand for this drug, for that purpose, exists on this side.

There may be a few prostitutes using the drug, but I do not know of any such case. It is believed that the ultimate effect of long use of the drug in immoderate quantities is impotency.

51 and 52. There is not the least connection between the moderate and immoderate use of any of the narcotic drugs of hemp and the perpetration of crime.

53 and 54. No indulgence in the use of the drug ever incites the consumer to commit unpremeditated crime. I do not know any case which led to homicidal frenzy.

Criminals, however, very naturally fortify themselves to commit a premeditated act. Even a tobacco-smoker or a snuff-user takes a pinch if he wants to refresh himself for an action. There is therefore nothing extraordinary if ganja is used by criminals who are about to proceed with their criminal act. It is generally said ganja does not make a man desperate and rash as liquor does. The consumers of ganja are generally nervous when they are under its influence.

55. Ganja sweetmeat mixed with dhatura is supposed to bring about complete stupefaction. This is practised very rarely.

56. Moderate smokers, of which however the number is comparatively very small, smoke ganja mixed with tobacco. Those who want to make it strong (of this class the number is largely to be found amongst "bairagis," "fakirs" etc.), mix it with a part of the seed of nux vomica, dhatura, bachnag. I am not in a position to give the exact proportion.

57. As I have said before, few people habitually eat or drink ganja on this side, because the habit is comparatively very costly. The occasion on which drinks are prepared by occasional and habitual consumers are too few and far between to afford any basis of any general deduction.

58. I think the excise administration as regards the hemp drugs is working well, and neither the contractors, nor the consumers, nor the people in general, whom I have questioned have any grievances to complain of.

60. The cultivation of ganja in these parts is on a very small scale and is well controlled.

62. I do not think what purpose can be gained by checking cultivation unless and until the demand for the drug diminishes. It is the cheapest intoxicant. Six pies a day is not a heavy charge. The temptation for smuggling is not so great, and no particular arrangements are needed to control the cultivation.

65. I am not at all of opinion that, compared to alcohols, the hemp drug is unreasonably taxed, and no complaint in that direction exists as regards ganja, bhang, etc., etc.

67 I have no objection to the present method of taxing.

68. None.

69. Local opinion is no doubt necessary, and at present shops are allowed to be opened irrespective of the wishes of the people. But I must at the same time state the number of shops is few, and no complaint on the subject exists. It is the liquor shops to which the complaint refers.

Oral evidence.

Question 1.—It was not until the Commission's questions came to me that I had occasion to make a study of the hemp drugs, though I had occasionally met consumers before.

Question 35.—I have talked about the matter with many persons, and in this answer I have stated the general opinion that it is remarkable that agitation has been directed against the hemp drugs and not against alcohol, which is equally harmful. This opinion I have heard expressed in Bijapur, Belgaum, Dharwar and my own neighbourhood. I have not read them in newspapers. I have stated further in my answer that the agitation is attributed to those who are anxious to encourage the spread of alcohol. By this expression is meant the persons who import and manufacture liquor. The opinion I have quoted is held both by the educated and ignorant people. The ignorant people cannot explain the grounds of their opinion. The opinion of the educated is based on the simple fact that Government do nothing to discourage the use of alcohol, which is more deleterious than the drugs. I myself have formed no definite opinion on the subject.

Question 44.—I have frequently noticed that people in a state of intoxication talk more if they are brought into a bright light. I cannot explain why this happens.

Question 45.—I attribute insanity in these cases to the hemp drugs because no other cause could be discovered; liquor, dhatura, nux vomica and bachnag also produce insanity. So do bad news, the distress of poverty and disappointment. I cannot say if insanity can be inherited. I have not made enquiry whether the parents in any of the cases I have described were mad. In case C, I happen to know that the mother was nearly mad. I remember the case of a hard-drinking weaver who went mad. I cannot recall any insanes who had become mad from other causes than liquor and ganja. I have met, as stated in my answer, ten people who became mad from hemp drugs, and also two persons who became mad from alcohol. I remember the ten ganja cases, because the third and fourth cases (C and D) occurred in my taluka, and the cases A and B I learnt from my friends. The other six cases were found out in course of the enquiries. I knew nothing about them before. The insane of case C died four years ago, at the age of 35. He began the hemp habit at the age of 16, and became mad a few months after he was 18. I was about 8 or 10 years old when he went mad about twenty years ago. In case D, the man went mad about five or six years ago. He did not drink. I learnt that he had gone mad from ganja smoking, and I made his acquaintance at that time. He had first gone mad at that time. That was the first. I had heard of him. I did not know him before he went mad. I attribute his madness to ganja, because I did not doubt the statements of his relatives and friends, who stated that that was the cause.

Question 56.—The first sentence of my answer will be understood if reference is made to my answer 41. I mean that moderate consumers are fewer than excessive consumers, because the moderate consumer of intoxicants is always inclined to go to excess. The number of people who remain moderate consumers because of their poverty is small. When I went to Belgaum, I visited people in Shapur, and I heard from ganja smokers that the poisons I have named were sometimes mixed with the drugs. I have myself seen bairagis, who visited my village, use nux vomica. One man who could not get the opium to which he was accustomed ate dhatura in my presence. It was not mixed with ganja, though the man was an occasional smoker of ganja.

---

111. *Evidence of* Dinanath Shiwshanker, *Druggist and Chemist.*

1. I have had opportunities of inquiring with my patients and customers who smoke ganja and drink bhang, and also who have travelled over some ganja farms, as to the advantages and disadvantages derived from smoking ganja and drinking bhang.

6. Dense.

10. They do not form a special class. They are of the same class as other agricultural cultivators.

19. Ganja and charas are used only for smoking. Ganja is used as a medicine for animals all over India).

20. Hindus of low caste smoke generally ganja, and Muhammadans charas. There is no particular locality. We cannot give exact proportion.

21. Flat kind of ganja is preferred for smoking.

22. Native charas is used generally. Turkish charas is used particularly.

23. Never.

24. Some high caste Hindus drink bhang in Nemad, Marwad, and districts around the Ganges.

28. Habitual moderate consumers consume about two pice worth ganja per diem.

Habitual excessive consumers consume six pice worth ganja per diem.

29. Ganja, as a rule, is mixed with an equal quantity of tobacco ordinarily; and bhang is mixed with *Piper nigrum* and aniseeds and with sugar ordinarily. Ganja is mixed with dhatura and sometimes with opium to increase its narcotic property exceptionally.

Bhang massala is generally composed of *Piper nigrum*, aniseeds, cardamoms, almonds, chestnuts.

30. To a very small extent ganja is consumed in solitude, but to a great extent it is consumed in company. It is not usual.

31. It can be easily formed and it is difficult to break it. There is a great tendency in the case of any of these drugs for the moderate habit to develop into the excessive one.

32. It is largely consumed on the festival of Shiva. It is generally excessive. It is likely to form a habit and not otherwise injurious.

33. Ganja and charas are regarded with disrepute socially; smokers are looked down. Use of

any form of the narcotic is generally in disrepute, because it makes the man victim to it and makes him maniac and unfit for work. There is no such custom of worshipping the hemp plant.

34. It is a serious privation. A ganja smoker will be very much excited and could not work when he does not get it. The same case with the bhang drinkers and charas smokers.

35. In British India it may be feasible to prohibit the use of these drugs, but it may be impossible in Native States. Prohibition can be enforced by restricting the sale. It will occasion serious discontent among the consumers. It may perhaps amount to a political danger. The prohibition might be followed by recourse to alcoholic stimulants.

36. There is no reason.

37. The charas is stronger than ganja.

39. Smoking is more injurious to health than drinking bhang. Smoking injures lungs and brings on bronchitis and other lung diseases; while drinking bhang is less injurious because it is mild in its effects.

40. Ganja smoking is advised by native doctors for neuralgic pain and idiopathic tetanus. Ganja is used in cattle disease in order to give tone to the stomach and to make them work longer without fatigue.

41. Ganja and charas are not beneficial, but bhang may be beneficial in hot climate if taken moderately.

(*a*) It sometimes increases appetite.

(*b*) It sometimes alleviates fatigue.

(*c*) It is used with that idea in some malarious districts.

(*d*) It is used by some as an aphrodisiac medicine.

42. Moderate use of any of these drugs is not harmless because it will form a habit and gradually it will lead him to use it excessively.

43. Ganja smokers are as a class inoffensive.

44. A moderate consumer is exhilarated and little intoxicated and is always with ready wits. It is sometimes refreshing and it is followed by depression. It creates appetite. The effect lasts for an hour. Nervousness and depression are the after-effects. It does produce longing.

45. (*a*) None.

(*b*) to (*d*) No.

(*e*) It induces laziness.

46. It does.

55. Yes (sometimes). It can stupefy completely.

112. *Evidence* of* NAWALCHAND HEERACHAND, *Jeweller, Bombay.*

1. Personal experience in connection with bhang.

2. I know bhang by the name of bhang only.

18. I know bhang deteriorates after six months and loses half of its narcotic effect, and it quite loses its effect after one year, and becomes useless for human consumption. Dampness and humidity of climate causes bhang to deteriorate. The deterioration can only be prevented by keeping it in an earthen jar closed air-tight and to bury the said jar in the ground. Bhang will remain good for one year if kept in that manner.

23. Bhang is never used for smoking.

24. Hindus of almost all castes use it more or less.

25. I think the use of bhang is neither on the increase or decrease.

28. The habitual moderate consumer will require one-ninth of a tola of bhang, the cost of which will be about one-third of a pie. The habitual excessive consumer will require about half a tola, and the cost will be about one pie.

29. Habitual consumers mix ordinarily with bhang black pepper. Exceptional consumers mix almonds, dried rose flowers, sugar, poppy seeds, cardamoms, and milk. Dhatura is not used with bhang so far as I know. These ingredients are put into bhang with the object of making it more palatable, and for the purpose of cooling the brain. There is no special preparation, such as bhang massala, that I know.

30. Bhang is generally drunk in company. The drinking is confined to the male sex. Men commence to drink when they are 20 years of age, and they continue doing so to old age. It is not customary for children to drink bhang.

31. A person who drinks bhang occasionally will form no habit, but if he drinks daily for six months, he will form a habit. The habit of drinking bhang can easily be broken off. The moderate habit of drinking bhang does not develop into the excessive habit.

32. I know that Hindus who are followers of Shiva pour bhang water on the ling of the god Shiva on Mondays and on Shivaratra days. I do not know whether the worshipper or anybody else drinks the bhang water poured on the ling of the god Shiva after it has been offered.

33. The habitual excessive use of bhang is generally considered a bad habit. I do not know whether the hemp plant is worshipped or not.

34. The habitual consumers would for some few days feel the want a slight deprivation.

35. In our religion the use of alcohol is strictly prohibited, and at times we are inclined to take bhang, and it would be a hardship for Government to prohibit the use of bhang; and if the use of bhang is prohibited, it will, I think, be consumed illicitly.

36. I do not know whether alcohol is now being substituted for bhang.

41. If bhang in very small doses is taken, it acts as a food accessory and digestive. It alleviates fatigue, but I do not know whether it gives staying power under exertion or exposure. Hindus who do not use liquor make use of bhang for the above-mentioned purposes.

42. The moderate use of bhang is, in my opinion, harmless. It acts as a food accessory and digestive, and is refreshing.

43. The moderate consumer of bhang is not offensive to his neighbours.

44. There is no immediate effect on the consumer of bhang. The effect is felt after an hour or two. It is refreshing. It produces exhilaration. It creates an appetite. The effect lasts for about two or three hours. The moderate habitual consumer feels no ill after-effects. The want of

* Translation.

subsequent gratification produces a longing in the case of a habitual moderate consumer.

45. The habitual moderate use of bhang produces no noxious effects of any kind.

46. The habitual excessive use of bhang produces no noxious effects. It is true, however, that a consumer in such a case loses the time during which his intoxication lasts.

47. I do not know of any case in which the habitual moderate use of bhang has appeared to be an hereditary habit, or affect in any way the children of the moderate consumer.

48. Same reply as to question No. 47.

51. So far as I know, no large proportion of bad characters are habitual moderate consumers of bhang. The consumption of bhang has no connection with crime so far as I know.

52. Same reply as to question No. 51.

53. The excessive consumption of bhang does not incite to unpremeditated crime of any kind. I do not know of any case in which the drinking of bhang has led to temporary homicidal frenzy.

54. It is not the case that bhang is drunk by criminals to fortify themselves to commit crime of any kind.

55. I have heard of no case in which criminals, in order to further their designs, have induced their victims to drink bhang and so stupefy them. Complete stupefaction cannot be induced by drinking bhang.

56. As regards bhang, narcotic effects are not modified by any of the substances added to it which I know of. These substances are added to bhang to make it more palatable, and to prevent it causing stomach-ache and wind. I have never heard of dhatura being added to bhang. Usually bhang is drunk in the evening at about 4 P. M. after finishing business, when neither pearls nor precious stones are valued. The saying that jewellers make use of bhang for the purpose of better ascertaining the real quality and value of pearls and diamonds has, I think, no foundation. My brothers and myself never partake of bhang during business hours. We take it after business is closed. It is true, however, that jewellers believe that the drinking of bhang has the effect of relieving the strain on the eye-sight caused by the keen and continuous examination of pearls and precious stones.

---

113. *Evidence of* JAMSEDJEE NASSERWANJEE GINWALLA,* *Shenshai Parsi, Abkari and Opium Farmer, and proprietor of cotton-ginning factories, Ankleswar.*

1. I have had personal interviews with consumers of hemp drugs as well as the farmers of bhang, ganja, and pak for the districts of Surat, Broach, Kaira and Ahmedabad, the shopkeepers of those drugs and some native doctors (hakims or vaids), from all of whom I have selected my information.

2. The province of Gujarat to which my investigations are restricted does not grow any ganja or charas. Flat ganja is the only drug imported for retail sale, chiefly from the Ahmednagar district. Charas is neither imported nor consumed in Gujarat. Even the farmers are not permitted to import and sell charas in Gujarat under the present license. Only bhang is grown in the Surat, Broach, Kaira, and Ahmedabad districts in small quantities, sufficient for local consumption, which is rarely exported, except from one district to another in Gujarat.

Under the circumstances the definitions for bhang, ganja and charas may be accepted for my province of Gujarat, wherein these intoxicating drugs are known by the name of bhang, ganja and charas. There is a fourth intoxicant, name pak, manufactured from bhang, ghi or clarified butter, and sugar in the shape of sweetmeats by the farmer of intoxicating drugs, who is licensed to sell bhang, ganja and pak.

Pak is prepared by boiling 4lb of bhang, 10lb, of water, 2lb of ghi or clarified butter, till the whole mass is reduced to about one-half, when the decoction is rubbed and strained through a cloth into a large plate or pot and allowed to be cooled down and freeze. The ghi so saturated with the intoxicating property of bhang and frozen on the top of the decoction is removed. Fifteen pounds of sugar mixed with water is boiled down to the consistency of thick syrup, mixed with the above ghi, and the whole mass is again boiled to a thicker consistency, put and spread into a large plate or pot, allowed to settle, cut in square pieces, and removed in the shape of sweetmeat called pak, which intoxicant is apparently left out of this inquiry by the Commission.

3. There is cultivation of the hemp plant in my province of Gujarat.

(*a*) None for production of ganja.

(*b*) None for production of charas.

(*c*) There is some grown for use of bhang.

(*d*) None for production of fibre or seeds especially.

The hemp plant is cultivated in the districts of Surat, Broach, Kaira and Ahmedabad in the province of Gujarat for use as bhang only to a very limited extent. As regards the Broach district, the average area under bhang cultivation is about three-fourths of an acre during the last ten years, which is restricted only to the village of Bhore-Bhata in the Broach taluka. I have no access to the records of other collectorates to obtain similar information.

10. The persons who cultivate hemp for its narcotic properties do not form a special class, but they are of the same classes as other agricultural cultivators.

13. Ganja is not at all cultivated in Gujarat.

14. The following products of the hemp plant are prepared in my province of Gujarat:—

(*a*) Ganja not prepared.

(*b*) Charas not prepared.

(*c*) Bhang is only prepared from the hemp plant in Gujarat.

Bhang is only prepared to a small extent sufficient for local consumption, out of which a little is exported from one district to another in Gujarat by the farmers.

15. (*a*) Only bhang is prepared from the culti-

* Invited to attend at a sitting of the Commission for oral examination, but failed to appear.

vated hemp plant for (A) nil, (B) eating, and (C) drinking in the province of Gujarat.

(*b*) The wild hemp plant is practically unknown in Gujarat.

16. Bhang is prepared generally by the people in their houses for private consumption; however, some people prepare and sell bhang to customers for drinking without a license at Surat. Bhang is prepared from the hemp plant wherever grown by cultivation in Gujarat, but I am not aware of the mode of preparing ganja or charas also from the wild plant wherever grown, as its cultivation or preparation is unknown in Gujarat. Ganja is only imported from the Ahmednagar district for sale by the farmers, which consumers buy from licensed shops and prepare it for their own private consumption with the admixture of tobacco.

17. Bhang is prepared by Hindus and Muhammadans for private consumption or sale in their respective castes owing to religious prejudice, under which a Hindu would not drink bhang prepared by a Muhammadan with his water; however, a Muhammadan shall have no objection to drink bhang prepared by a Hindu with his own water. In a similar manner ganja is washed with water, mixed with tobacco and smoked by Hindus and Muhammadans separately owing to religious prejudice.

18. Bhang and ganja deteriorate by keeping for a long time. They do not quite lose their effect within two years. They keep good for nearly one year with ordinary care, but commence to deteriorate in their intoxicating properties gradually to the end of the second year, and become useless towards the end of the third year, when they are usually destroyed. The causes of deterioration are exposure, dampness, and long keeping; no special measures can be taken to prevent deterioration, except keeping them in dry vessels and places for the above periods. As charas is neither imported nor allowed to be sold by the farmers or licensees in Gujarat, I am unable to answer this query with respect to that drug.

19. Ganja is used only for smoking, and charas is practically unknown in Gujarat.

20. Hindu and Muhammadan religious mendicants, such as fakirs, sadhus, &c., residing in burial grounds, temples,, and charitable religious places, chiefly smoke ganja. However, it is also smoked by middle and lower classes of Hindus and Muhammadans, who generally contract the habit in associating with such mendicants. The proportion of ganja-smokers cannot be ascertained without official reliable statistics. Charas is practically unknown in Gujarat.

21. As only flat ganja is imported and sold by the Government farmers in Gujarat, round or chur ganja is practically unknown, and consequently no choice is left to the people to prefer a particular kind of ganja for smoking in Gujarat.

22. No charas, native or foreign, is either imported or used in Gujarat, under the terms of the existing license granted to the farmers for bhang, ganja, and pak.

23. Bhang is never used for smoking in any localities by any classes of people and to any extent in Gujarat.

24. Muhammadans and Hindus eat bhang to a limited extent, but both classes of people drink bhang in almost all localities where people are addicted to its use; the proportion of bhang eaters and drinkers cannot be ascertained in the absence of official statistics.

25. The use of ganja and bhang is on the increase in Gujarat, which is apparent from the abkari administration reports, and the increased amounts of revenue realised for the current farms of bhang, ganja and pak in the Gujarat district of Surat, Broach, Kaira, and Ahmedabad. The use of charas is unknown in Gujarat.

28. (*a*) The average allowance of habitual moderate consumers of bhang is ¾ tola costing one pie, and that of ganja is half tola, costing three pies per diem.

(*b*) The average allowance of habitual excessive consumers of bhang is six tolas, costing nine pies, and that of ganja is five tolas, costing annas two and pies six. However, there are very rare habitual excessive consumers of ten tolas of bhang costing fifteen pies and ten tolas of ganja costing five annas per diem. The use of charas is practically unknown in Gujarat.

29. (*a*) Black pepper is ordinarily mixed with bhang and tobacco with ganja.

(*b*) The ingredients exceptionally mixed with bhang are black pepper, sugar, rose-flowers, cardamoms, poppy seeds, almonds, milk, carraway seeds, etc., flavouring ingredients, and dried fruits according to the taste of higher classes of consumers, which is commonly named bhang massala, while nothing is exceptionally mixed with ganja beyond tobacco. Dhatura is not used in mixing with bhang and ganja. The object of the admixture of the above flavouring ingredients and dried fruits with bhang, called bhang massala, is to render the preparation pleasant to the taste and mild in its effects. The common bhang massala is composed of pepper, poppy seeds, rose-flowers, carraway seeds and sugar, which is used by the middle classes of the people.

30. The extent of the consumption of bhang and ganja in solitude or in company cannot be ascertained without reliable statistics; however, their consumption is mainly confined to the male sex, but not to any time of life. It is not usual for children to consume bhang or ganja. The consumption of charas is practically unknown in Gujarat.

31. The habit of consuming bhang or ganja may easily be formed by frequenting the society of the consumers of such drugs. The habit is not difficult to break off. There is a tendency in the case of bhang and ganja for the moderate habit to develop into the excessive when one is associated with habitual excessive consumers.

32. There is a religious ceremony called "Abhisek" of the Mahadev in temples performed by Brahmins, in which some prepared bhang mixture is dribbled through a pot hung over the head of the Mahadev on certain occasions; but simple water may be used instead when the bhang mixture is not available. The use of bhang and ganja is not regarded as essential in connection with any social or religious customs.

33. The consumption of bhang and ganja is not favourably regarded by considerate people, except the habitual consumers. There is no public opinion, social or religious, in regard to the practice. The use of bhang and ganja is generally in disrepute, except amongst habitual consumers, who are addicted to their use. There is no custom of worshipping the hemp plant on certain occasions by certain sects of the people in Gujarat.

34. It would perhaps be a serious privation to Muhammadan and Hindu religious mendicants to forego the consumption of bhang and ganja, which help professional beggars to while away their time in intoxication. Ganja is especially considered to produce bodily heat, and help those poor wretches against inclement weather and want of sufficient clothing. In the absence of any reliable statistics the probable number of each class of such people cannot be ascertained.

35. It would neither be feasible nor justifiable to prohibit the use of bhang or ganja in British territory without the co-operation of the surrounding and intervening Native States, whence the drugs would be smuggled and consumed illicitly. If all the Native States in India consent to co-operate with the British Government, the prohibition could be enforced. The prohibition would occasion serious discontent among the consumers in general, and such of the religious mendicants in particular. Such discontent would not amount to a political danger, because the consumers of bhang and ganja form only a microscopic minority as compared to the population of India, and who cannot expect any support from the masses. (*a*) The prohibition of bhang and ganja would be followed by recourse to alcoholic stimulants amongst people who have no religious prejudices against the use of alcohol, provided that they could incur increased expenditure; but non-drinking Hindus and Muhammadans would not take to alcoholic stimulants owing to the prohibition of bhang and ganja under any circumstances. (*b*) The prohibition of bhang and ganja may sometimes be followed by recourse to opium in rare cases amongst non-drinking classes.

36. There is no reason for thinking that highly excised alcohol is now being to a certain extent substituted for cheap intoxicants like bhang and ganja, but, on the contrary, bhang and ganja are substituted for alcohol by poor drinking classes of people, who cannot afford money to indulge in costly alcohol, and the increased consumption and revenue of the intoxicating drugs is a proof of its reality.

40. The use of ghi or clarified butter saturated with the intoxicating property of bhang prepared in the manner described in the answer of question No. 2 regarding the preparation of the *pak* is prescribed by native doctors, called hakims and vaids, in certain medicinal preparations. No ganja is so used in medicinal preparations. Bhang is also used in the treatment of cattle disease, but not ganja.

41. (*a*) The moderate use of bhang and ganja is considered beneficial in their effects as a food accessory, or digestive, as could be ascertained from the consumers only, which statement could be taken for what it is worth.

(*b*) The moderate use of bhang and ganja are said to give staying power under severe exertion or exposure, or to alleviate fatigue, as could be ascertained from the consumers only.

(*c*) Bhang and ganja are not considered beneficial in their effects as a febrifuge or preventive of disease in malarious and unhealthy tracts.

(*d*) Bhang is supposed to be beneficial in its effects as a food accessory or digestive, to give staying power under severe exertion or exposure, or to alleviate fatigue in cattle and horses when mixed with bajri, flour, jagri, pepper, alum, ginger, turmeric, and garlic.

No ganja is used for the purposes indicated in clauses (*a*), (*b*) and (*d*). Muhammadan and Hindu religious mendicants use bhang and ganja for any of the above purposes, whose proportion cannot be ascertained. I refer to the moderate habitual use in clauses (*a*) and (*b*) and moderate occasional use of bhang in clause (*d*). Charas is not used in Gujarat.

42. Although I am not inclined to believe in the beneficial effects of the moderate use of bhang and ganja, I consider their moderate use to be harmless from what I could gather by personal interviews with moderate consumers and a glance on their constitution.

43. Yes; I think so.

44. The immediate effect of the moderate use of bhang and ganja on the habitual consumers is said to be refreshing, producing moderate intoxication, and creating appetite. The effect of bhang lasts for about six hours, and that of ganja for about three hours; the after-effects of bhang and ganja are unpleasant feelings of lassitude. The want of subsequent gratification produces longing or uneasiness.

45. The habitual moderate use of bhang and ganja does not apparently produce any noxious effects, physical, mental or moral; does not impair the constitution in any way, injure the digestion or cause loss of appetite, cause dysentery, bronchitis or asthma, impair the moral sense or induce laziness or habits of immorality or debauchery. It does not deaden the intellect or produce insanity.

46. The habitual excessive use of bhang produces noxious effects, physical or mental, impairs the constitution, injures the digestion or causes loss of appetite, induces laziness, deadens the intellect to some extent, but it does not produce insanity. The habitual excessive use of ganja produces noxious effects, physical or mental; impairs the constitution; injures the digestion, or causes loss of appetite; causes dysentery, bronchitis or asthma; induces laziness; deadens the intellect or produces insanity, temporary or permanent. The symptoms of temporary insanity may be re-induced by the use of the drug after liberation from restraint. Insanes who have no recorded ganja history confess to the use of the drug. There is a Brahmin named Ravisankar Gunpatram, aged about 22 years, inhabitant of Anklesvar, an insane from the effects of the habitual excessive use of ganja, at present confined in the lunatic asylum at Ahmedabad. There are other semi or temporary insanes named Vanmali Morar, a tailor, aged about 30 years; Jelu Manishankar, a Brahmin, aged about 25 years; Aju Gulab, a Muhammadan, aged about 32 years, at Ankleswar; and many others elsewhere.

58. I am acquainted with the present system of excise administration in my province of Gujarat with respect to hemp drugs, and I do not consider it to be working well, which is capable of improvement. Under the present excise administration of hemp drugs, the exclusive privilege of import, manufacture and retail sale of hemp drugs is granted to the highest bidder on a lump sum of an annual guaranteed minimum revenue. The farmer is allowed to purchase bhang from local cultivators free of duty at any prices, or import from other districts covered under permits on payment of Rs. 5 for the first 10 maunds and Re. 1 for each subsequent 2 maunds. The "pak" is manufactured locally by the farmer as described in the answer for question No. 2. Since no retail price is fixed in the license, the farmer can

sell bhang, ganja and pak at his own prices. At present bhang is sold from 5 to 6 annas per lb, ganja from Re. 1 to Re. 1½ per lb and pak from Re. 1 to Re. 1½ per lb. The retail sale accounts kept at shops are unsatisfactory. The actual consumption may be disguised, as deteriorated bhang and ganja destroyed and accounted for in the column of loss from deterioration and destruction, thus rendering actual statistics of consumption unsatisfactory.

59. The manufacture of pak, local purchase of bhang, and import of bhang and ganja should be sufficiently controlled, and stocks to be kept in a central district depot from whence each drug to be issued to retail shops covered under permits, proper accounts kept, deteriorated drugs destroyed in the presence of responsible officers, retail price of each drug fixed in the license, and the limit of retail sale and possession by any one person on any one day to be reduced from 40 to 10 tolas. The farm for each district should be given on "the central depôt, annual guaranted minimum vend, and definite duty system." The farmer should be restricted to the sale of such quantity of the drugs as may be covered under the annual minimum revenue guaranteed under his license, and calculated at a certain rate of duty fixed per lb of each drug sold, as is the case with the country spirit farms at present, and was the case with the opium farms before the guaranteed minimum vend system was abolished.

62. The cultivation of the hemp plant for the production of bhang should be controlled by granting licenses for cultivation, registering the area under cultivation, collecting, weighing and storing the produce under Government supervision which may be issued and transported, covered under permits granted by competent authorities for local consumption " at the district central authorized depôt " for the farmer, or transported to other districts as may be necessary, and proper accounts kept of each transaction.

63. Yes; I have objection to the present system of (*a*) wholesale, (*b*) retail vend of (1) ganja, (2) charas, (3) bhang, or preparations of them, which I have fully described, and indicated the improvements I suggest in the answers for the questions 58 and 59, which I consider unnecessary to repeat here.

64. Yes. The existing regulations governing the export and import of these drugs or of their preparations from and into my province or that transport within the province are unsatisfactory, because the farmer may import, export or transport the drugs from one place or district to another place or district, under permits which are never scrutinized, or the storage kept under Government control, and satisfactory accounts of each transaction are not kept. Illicit drugs could not be distinguished from licit or the mischief traced.

65. Yes; in my opinion the taxation of (1) Ganja, (2) charas, (3) bhang is not reasonable with reference (*a*) to each other, (*b*) to alcoholic or other intoxicant. I would suggest an excise duty of Re. 1 per lb, on bhang, Rs. 3 per lb. on ganja, and Rs. 5 per lb. on charas. Bhang is the least noxious out of the three drugs. Next to bhang is ganja, and the worst is charas. These are my reasons for the different rates of taxation of the three drugs I suggest.

66. No.

67. Yes; the ultimate incidence of the tax on the consumers of ganja, bhang and charas is quite insignificant, and out of all proportion to that on the consumers of alcohol and opium when the relative intoxicating property of each drug is considered along with its price.

68. There are no houses or shops licensed for the sale of these drugs, or their preparations, where they may be consumed on the premises in my province of Gujarat. However, some unlicensed sale of prepared bhang is practised at Surat which may be suppressed.

69. The wishes of the people are seldom considered in any way before a shop is opened in any locality. The revenue and police authorities are only consulted before the opening of a shop is sanctioned. I think it would be advisable to consider local public opinion in such matters.

70. There are cases of illicit import or smuggling of hemp drugs from the Native States of Baroda, Rewa Kantha and Mahikantha, which surround and interlace the province of Gujarat, although the actual offences on record are few. These drugs are so small in bulk and easy to transport that detection is very difficult and sometimes impossible. There is use of untaxed drugs to a certain extent which may be greatly aggravated by enhancing the duty on them for licit import and sale. The only remedy would be the co-operation of the Native States concerned with the British Government in maintaining an uniform system of taxation, import, sale, and transport as in the case of opium at present; otherwise the Native States will gain in revenue at the cost of the British Government if they may be pleased to raise the taxes on the drugs as suggested in the answer for question No. 65. The proportion of habitual moderate and excessive as well as occasional consumers of these drugs could only be ascertained by actual enumeration through the village officers in each district under the directions of the Collector any time, or on the occasion of the census. During the tenure of my opium farm for the Broach district for the years 1890-91 and 1891-92, I have induced the Collector at Broach to order the preparation of a list of opium-eaters residing in each village through the mamlatdar and village officers in each taluka, with the quantity or value of opium consumed by each person per diem. These lists were scrutinized and corrected by my private preventive Inspectors on personal inquiries at each village, and they proved to be greatly instrumental in calculating the actual consumption of opium in each village, and tracing the illicit import, sale and consumption of the drug from the surrounding and intervening Native territories of Baroda and Rajpipla. In the same manner lists of consumers of each intoxicating drug may be prepared and corrected from time to time, which may be very useful in deducing the requisite statistics.

114. *Evidence of* KISAN DULICHAND, *Licensed Vendor of Ganja, Nasik.*

1. I have been a dealer in ganja for the last thirty years and cultivator of the same for the last seven or eight years.

2. The definition of ganja stated in question 2 will serve the purpose of the inquiry.

7. I cultivate the hemp plant for the production

of ganja and bhang only. According to my knowledge there are some 30 acres of land under cultivation where hemp is grown.

8. There is no increase or decrease in its cultivation in this district for the last eight years.

9. The land is first prepared as for other agricultural purposes and the seeds are sown at the distance of 2½ feet in rows. When the seeds come above ground, all male plants are from time to time detected and destroyed. This goes on from four to five months, when the female flower stalks are removed and dried. This forms ganja, while bracts and some other leaves form bhang.

14. In this district (Nasik) bhang and ganja are only produced.

16. Ganja and charas cannot be prepared from plants wherever grown, for the substance is spoilt if the male plants are not destroyed.

18. Bhang and ganja deteriorate by keeping. It quite loses its effect in time. With good care it may be preserved from two to three years.

19. Ganja and charas are only used for smoking. In rare cases people eat ganja or charas.

20. In this district charas is very rarely used. Men from all classes smoke ganja. Consumers of the drug are, however, to be found in large majority in the bairagi and gosavi class.

23. Bhang is never used for smoking.

24. Men from all classes drink bhanga.

28. (*a*) Nearly five tolas, cost 1½ annas.

(*b*) Double the quantity.

29. Ordinarily tobacco is mixed with ganja, which is first moistened by washing. Dhatura is used with ganja in order to produce extraordinary intoxicating properties. Like punch there is a preparation of ganja consisting of five ingredients:—ganja, arsenic, aconite, nux vomica and opium.

30. I have not known women using these drugs.

31. The habit is easily formed. If a person daily uses one of these drugs for six months he usually becomes addicted to it. It is not very difficult to give up the habit when newly formed. In confirmed cases it is rather hard for the person to break it off. There is always a tendency in all intoxicating substances to develop into the excessive from moderate habit.

33. There is no religious prohibition for the consumption of any of these drugs. The higher classes of society entertain a kind of prejudice against a consumer of any of these drugs, for it is only in the low class people that ganja smoking, etc., is not looked upon as immoral.

35. It would occasion serious discontent. The prohibition would not amount to a political danger. People would take to alcoholic stimulants.

41. The moderate use of any of the drugs is beneficial if the consumer uses good food. Its use alleviates fatigue.

43. Moderate consumers are inoffensive to their neighbours.

44. It produces pleasurable sensations. It never raises the spirit, but it generally depresses. The effect lasts from two to three hours. Its after-effects are languor and dullness.

---

115. *Evidence of* NANNU MIAN B. SHAIKH, *Municipal Secretary, Surat.*

1. I have had numerous opportunities of obtaining information during my services extending over twenty-six years—1st, as Overseer, Local Fund Canals, in the Hyderabad (Sind) and Shikarpur districts, 2ndly, as Municipal Secretary at Shikarpur, 3rdly, as Municipal Secretary at Surat, 4thly, as Administrator of the Sachin State, and 5thly, during my travels in Northern India, Bengal and Calcutta. During the above period I had the opportunity of seeing the hemp being cultivated, of talking with cultivators, drinkers and smokers of bhang and ganja and charas, and of marking the effects thereof produced on the consumers.

Since the receipt of the Government communication No. 7393 of 10th October 1893, I have instituted special enquiries by actually visiting the fields where hemp is grown some 9 miles from Surat, inviting drinkers of bhang and smokers of ganja and charas to my residence, and hearing from them their experiences, taking notes of the effects produced on their respective countenances, and constitutions.

2. The definitions given may be accepted so far as bhang and ganja are concerned. As regards charas my own idea and definitions are somewhat different. Charas is the name applied to the dew-drops, dirt and resinous matter sticking to the plant and collected by a curious process which I will explain in my oral examination. It is of course resinous matter, but not entirely so.

3. Hemp plant is not seen by me growing spontaneously without any seed. So far as I know, hemp growing in the alluvial deposits on the banks of the Indus or the Ganges and of the canals flowing from it, is the production of the seed washed away or brought by the muddy water of the rivers, but I have never seen it growing abundantly. I have seen hemp growing on the hills near Sehwan, and it at first appeared to me to be growing spontaneously, but I soon dicovered that parrots, while returning to their nests on the hills, brought a branch or tops of the hemp plant from the territories of His Highness Mir Ali Murad Khan, Jaipur, on the opposite side and dropped the seeds there. The name of the bhang grown from these seeds is bhang-i-kohi or Kohistani. I will speak about its properties at the proper place.

4. In the Surat district there is a kind of wild hemp growing in the hemp fields. It is known by the name of bhangra.

5. For the growth of the wild hemp, except good loamy soil and moderate supply of water, no special condition is necessary. I have seen it growing at 20 to 500 feet above the sea level.

6. The growth of the wild hemp is scattered and not dense. Two plants can hardly be seen together.

7. In the Surat district, Charasi taluka, in the villages of Bhatpur, Itchapur, and Kanar, the cultivation of the hemp is carried on for the production of (*c*) bhang only. About 30 bighas of land is generally used in the cultivation. No attempt is being made here to produce ganja and charas, nor is fibre extracted from the stems of

the plant. At Broach and Nadiad hemp is grown for use as bhang only, but not to such an extent as in Surat.

8. There has been a continual decrease in the area under cultivation every year owing to the worry and trouble the cultivator is put. In the first instance, before putting the seed into the ground he must apply to the mamlatdar for a pass; secondly, while the plant is growing he is generally watched by abkari officers and the contractor; and thirdly, when the crop is ready he must remove it under a pass and give it to the contractor for what he chooses to pay, *i.e.*, he is at the mercy of the contractor, who generally has the contract for the whole province as at present.

9. The cultivation of hemp is generally commenced from the middle of the rainy season till the cold season or till December in Gujarat and in July or August in Sind. The soil necessary for hemp cultivation is loamy or sandy. The ground is first levelled and cleared of shrubs, etc. It is then flooded and ploughed up, the seed is then put in by means of phatke (tubular vertical instrument). Too much water is injurious to the growth of the hemp. If there is no sufficient moisture the field is watered once or twice. The low, sandy, clayish banks of rivers are overrun once or twice with water, like the Indus or the Tapti, known as *katcho* in Sind and *bhata* in Gujarat, is best suited for the growth of hemp.

10. In Sind and other places and in Surat the cultivation of hemp is confined not to one class. The cultivators are of the same class as other cultivators; any cultivator having land suitable for the growth of hemp may cultivate it.

11. In Sind, in the territories of His Highness Mir Ali Murad Khan, ganja is raised from the same seed as bhang. The plant intended for ganja becomes generally stunted on account of harder and rocky nature of soil underneath it. The leaves get shrivelled. This is the distinguishing feature of the plant which is left for ganja, which is a female plant. The flowers and tops of the branches assume the same form. The flowery tops of the wild hemp plant known in Sind as Kohi or Kohistani possesses even without their being made into flat or round ganja, the properties of ganja and much searched after by fakirs and sadhus visiting those regions.

12. No. I have no reason to suppose that wild hemp is specially cultivated anywhere for the production of ganja.

13. No; on the contrary in Gujarat, *i.e.*, at Surat, Broach and Nariad, the cultivation of the hemp plant is restricted for bhang. It might be so restricted in Sind for aught I know. The cultivation of hemp for ganja alone is also possible in Gujarat. The conditions of climate, soil, rainfall, etc., are the same as for the cultivation of hemp; for bhang, a little richer soil, mixed with rotten leaves manure, is perhaps necessary.

14. Yes; only bhang is prepared from the hemp plant in the province of Gujarat, *i.e.*, in the Surat, Broach and Kaira districts. In Northern India, Sind and the Deccan ganja is produced from the hemp plant. So far as I know, charas is made at Yarkand and North Afghanistan. The extent of the cultivation of hemp plant for bhang only in Surat is about 30 bighas, yielding about 300 maunds of bhang.

15. From the cultivated hemp plant the following two articles are made in the province of Sind:—

Bhang, which is of two kinds, (1) bhang khuti, and (2) bhang ghumdini. Bhang khuti is the compound of leaves with seeds mixed together. This is commonly used for making majum (bhang sweetmeat) and bhang ghi to be eaten. Bhang ghumdini is the topmost branch of the plant with leaves and seeds sticking to it, and used for drinking after it is well pounded and mixed with water. This is also done in Gujarat.

Ganja is known here to be of three kinds—(1) flat or chapat, (2) round or ghundi, or bandi kali, and (3) chur or broken. This is used for smoking.

I have read in books and heard how charas is made in Yarkand, etc. It is also used for smoking.

16. Bhang is prepared by the people in their houses. It is also sold in liquid or dry state in the bazar. It can be prepared from the plant wherever it grows. Yes; ganja can also be so prepared, but not charas, the preparation of which is peculiar, and I will describe it, if required, orally.

17. The preparations of the hemp drug are made almost by all classes, Hindus and Muhammadans throughout India. Some Parsis also prepare and drink bhang in Surat.

18. Yes; all three drugs deteriorate by keeping them over a year after the crop is cut or gathered. It loses its effect by time. With ordinary care it keeps for a year or two. The atmospherical changes and exposure deteriorate the effects of the drug. If after the crop is cut and dried, it is kept in hermetically sealed tin cases, it is likely to retain its effects for a longer period.

19. Ganja and charas are used for smoking. At Faizabad in Northern India, ganja is even eaten. It is generally passed round in company, and every one present takes a pinch or two and puts it in his mouth.

20. Charas and ganja are smoked by the Hindus and Muhammadans, *i.e.*, bairagis, sadhus, fakirs and others throughout India wherever they are available. Ganja is mostly smoked in Gujarat, where charas is not available.

21. Round, or what is commonly known as bandi kali or baluchar, is preferred for smoking. Flat or chapat ganja is said not to be so intoxicating as round or baluchar ganja.

22. Charas is not used in the province of Gujarat. Sometimes small quantities are found with sadhus and bairagis or fakirs coming from Northern India, Benares, etc., but it is kept by them more for show than for actual use.

23. Bhang is not used for smoking.

24. In Sind bhang is drunk almost by all classes, Hindus or Muhammadans, males or females, and even by children. When mixed with massala and properly prepared, it is one of the most cooling and refreshing drinks, specially during the hot weather. I have personally drunk it when I was in Sind with great advantage to my health. I will state my experience of it in my oral examination. In Gujarat it is generally drunk by some of the Hindus and Muhammadans, and specially by the jewellers. It is a usual drink for the fakirs and sadhus. About 30 per cent. of the Hindu male population and 10 per cent. Muhammadan male population and 1 per cent. Parsi male population drink bhang in Surat. Bhang is not eaten except in majum and ghi.

25. In Sind and Gujarat the use of ganja and bhang is on the increase, as they kept the persons using or consuming them in good humour, produce appetite, digestion and rest, and are not so heating as other intoxicating drugs and drinks are.

26. Amongst the consumers there are—

(*a*) 70 per cent. of habitual moderate consumers;

(*b*) 20 per cent. habitual excessive consumers;

(*c*) 5 per cent. occasional moderate consumers; and

(*d*) 5 per cent. occasional excessive consumers of bhang and ganja.

27. From the Hindus and Mussalmans. They are mostly sadhus, bairagis and fakirs, and some are well-to-do Hindus and Muhammadans. There are various circumstances which lead one to contract the habit of drinking bhang and smoking ganja.

28. I give below the average allowance and cost of each drug per day—

(*a*) Habitual moderate bhang drinker consumes about 12 pies weight, worth about 8 pies.

Habitual moderate ganja smoker smokes about 24 pies weight or about 2 annas worth.

(*b*) Habitual excessive consumer of bhang takes about half a lb. or about three annas worth of bhang.

Habitual excessive smoker of ganja takes about fifty pies weight, worth about five annas.

29. The well-to-do drinkers of bhang generally mix almonds, pistachios, poppy seeds, pepper, cardamoms, pumpkin seed, cummin and aniseed. Dhatura is not mixed except by bairagis or sadhus who want to remain in unconscious or semi-conscious state. Ganja is ordinarily and exceptionally mixed with tobacco and smoked by all habitual consumers except some sadhus or bairagis who smoke it in their chillum without any mixture to get more intoxicated.

30. As to the extent of consumption of each of these drugs in solitude see my reply in paragraph 28. In company more or about one-third more is used by each consumer. In Sind drinking of bhang is confined to both males and females, and in the ten days of Muharram pots of bhang sweetened with sugar or jagri are kept in the bazar for use by the masses of all ages, males and females, except Hindus who have their own bhang pots. Ganja is smoked also by sadhus' children, and there is no limit of age when they commence smoking.

31. The habit of consuming any of these drugs is gradually formed but not easily broken. It develops from moderate into excessive habit in company or when the person using bhang or ganja is in an indifferent health.

32. Except amongst the sadhus and fakirs there is no custom, social or religious, to use these drugs. It is often said that a man is not admitted into the fraternity or class of fakirs or sadhus unless he commences with the drinking of bhang or the smoking of ganja. Bhang is generally temperately drunk by the fakirs, but ganja is excessively smoked by the sadhus. It is likely to lead to formation of habit, otherwise injurious.

33. The consumption of each of these drugs is generally regarded by educated people with disfavour. The Muhammadan religion prohibits the use of any intoxicating drug or liquid. Amongst the Hindus for aught I know it may be different. It is drunk or smoked by Hindu sadhus and Muhammadan fakirs with incantation, invoking the aid of Mahadeo or Anal Hak or Shah Bahawal Hak, etc.

34. It would be a serious privation to the fakirs and sadhu classes to forego the consumption of the drugs they use. I know of fakirs and sadhus living for days together by simply smoking ganja or drinking bhang. It is in fact their food. I can form no idea as to the number of each class, having no census statistics before me, but it may be put down that at least 15 per cent. of the whole population of India will be put to the serious privation. They cannot at once give up the use, fearing attacks of asthma, want of rest, appetite, and indigestion.

35. It would not be feasible to prohibit the use of any of these drugs in the present generation at least. The drugs would be illicitly consumed. The prohibition will cause serious discontent and lead to danger. Education is the only means of making the future generation understand the disadvantages arising from the consumption of any of these drugs. No end of preaching will have any effect on habitual consumers. I do not think the prohibition would be followed by recourse to (*a*) alcoholic stimulants, or (*b*) other drugs.

36. There is no reason for thinking that alcohol is now being substituted for any of these drugs. On the contrary, fakirs and sadhus hate alcoholic drink. I actually tried this by offering spirituous liquor to them, but they would not drink it.

37. Charas is said to be more intoxicating than ganja. It is more injurious to human constitution than ganja.

38. The three different preparations of ganja produce different effects on the consumers on account of the three being a degree more or less intoxicating. Proper effect is secured by the consumer increasing or decreasing the quantity of the ganja according to its strength.

See my answer to paragraph 21.

39. The smoking of any preparation of hemp plant is more injurious than drinking or eating bhang, as the latter is more cooling and less intoxicating.

40. In *Unani Tib* and Persian books on medicines, like *Mujarrebat Bo Ali*, published at Agra by Munshi Kishanlal, *Mujarrebat Akbari* published at Bombay by Mohamed Husen, the uses of these drugs are prescribed for different ailments, etc. The *Makhzan-ul-Advia* describes the advantages and disadvantages arising by the consumption of these drugs.

41. The moderate use of charas, ganja or bhang is considered beneficial—

(*a*) as a food accessory or digestive;

(*b*) as giving staying power under severe exertion or exposure or alleviation of fatigue;

(*c*) as a febrifuge or preventive of disease in malarious and unhealthy tracts. I have seen sadhus enduring after a smoke of ganja any amount of cold without feeling its least effect. I have seen sadhus standing in ice-like cold water throughout the winter night and morning with north-east cold wind blowing. I have also seen Muhammadans and Hindu labourers after a good drink of bhang working night and day stopping breaches of bunds and banks of canals without any bad

effect on their health. In Sind about 60 per cent. of population use the drugs, specially bhang moderately.

42. The moderate use of these drugs is harmless for reasons given above.

43. Moderate or even excessive consumers of any of these drugs are harmless and inoffensive to their neighbours. They are never aggressive.

44. The immediate effect of the moderate use of any of these drugs on the habitual consumer is refreshing. It produces slight intoxication. It allays hunger and creates appetite. Its effects last for five or six hours, and the after-effects are not bad.

45. The habitual moderate use of any of these drugs does not produce any noxious effects. It does not impair the constitution nor does it injure the digestion or cause loss of appetite. It is said to prevent dysentery, bronchitis, or asthma. It does not impair the moral sense or induce laziness or habits of immorality or debauchery. Moderate drinking of bhang and smoking of ganja does not deaden the intellect and produce insanity; and I have no personal knowledge of any moderate consumer becoming insane or suffering from any mental anxiety or brain disease. Nor can the fakirs or sadhus whom I have consulted lay their hand on a particular person by way of example.

46. Habitual excessive use of these drugs is simply injurious, but personally I do not know any habitual excessive consumer becoming insane, nor have I been informed of any case by the fakirs and sadhus with whom I have been meeting and discussing this matter. To such consumers the drugs are harmless, but to novices it is very harmful.

47 and 48. It is not hereditary, nor does it affect the children of moderate consumers so far as I know and I am informed by the fakirs and sadhus.

49 and 50. I do not know; but Persian medical books, mentioned in paragraph 40, recommend use of bhang and majum (bhang sweetmeat) for excitement of passion and sexual intercourse.

51. There are not many bad characters I know of who are habitual moderate consumers of any of these drugs the use of which discourages crimes.

52. Excessive use of any of these drugs will make the consumers afraid of doing any such thing.

53. Excessive indulgence in any of these drugs does not incite to unpremeditated crime, violent or otherwise. I do not know of any case in which it has led to temporary homicidal frenzy.

54. From what I know, these drugs have the advantage of discouraging any act of violence or crime. There is a Sindhi proverb that a bhangi (bhang drinker) may boast of high deeds, but when he is once drunk he is powerless to do anything. The defeat of the Sindhis at the battle of Miani near Hyderabad is always attributed to the effects of bhang.

55. Criminals, in order to further their designs, induce their victims to partake of any of these drugs. Complete stupefaction is produced with the admixture of dhatura.

56. The effects of hemp used in moderation or in excess, mixed with dhatura, greatly increase intoxication.

57. Ganja is said to be eaten in Faizabad on the Gomti. In a company of fakirs or bairagis, a basket or box of ganja is passed round. It is said to be very intoxicating. I have no personal experience of this.

60 and 61. No.

62. No. It is quite feasible. The practice of obtaining a license before hemp is cultivated is quite sufficient.

63. No.

64. The present restrictions are quite sufficient.

65. The present taxation on bhang, charas, and ganja is excessive. If it is reduced, it will not affect alcoholic or other intoxicants.

66 and 67. No.

68. There are shops for the sale of these drugs, also of their preparations. These are harmless places.

69. No; the wishes of the people are not consulted when a shop is opened in any locality; I think people should be consulted.

70. I am not aware.

---

116. *Evidence of* Rao Bahadur Venkat Rango Katti, *Pensioner, Dharwar.*

1. My personal experience and information from two friends who have served long in the Abkari department, and intimacy with persons using hemp drugs.

2. Nothing but seed is produced from the male. Ganja, bhang and all varieties come from the female. Round ganja is not sold in this district.

3. Hemp neither grows spontaneously nor is cultivated in the Dharwar district. The Jath State is the nearest tract to Dharwar where the plant is cultivated. I have, however, seen the male plant spontaneously grown singly in my garden once or twice.

7. No.

14. No. Ganja and bhang come from the Satara district, especially from a town named Lengre. Charas is never sold in the bazar, and scarcely any man knows it.

15. Preparations for eating and drinking:—

Rough majum.—Ganja cleaned and dried on fire is powdered and strained through cloth. The powder is then put in a strong (pakka) syrup prepared of refined sugar or raw sugar while on fire. The mixture is immediately poured on a smooth board greased with ghee, and when it cools, it is cut into small slices for use. This majum was formerly sold under license, but latterly from about ten years it is not sold in the bazar.

Refined majum.—Ganja, washed perfectly clean by rubbing with hands in water, is boiled in water. When the water assumes green colour, butter in the proportion of one-half kacha seer to half a seer of ganja is put in the boiling water. When a thick green cream is seen on the surface, the pot is removed from fire, and its contents are strained through a rough woollen cloth so as the strained water containing the essence of ganja mixed with butter would fall into the basin of cold water. When the water cools, a thick solid cream formed on the surface in the basin is carefully removed and the water thrown away. Then a pakka syrup of kacha 6 seers of good sugar is prepared, in which half a nutmeg, ¼

tola of mace, ¼ tola of saffron, ½ tola of almonds, 4 or 5 cloves, all powdered together are put together with the cream of ganja, and the whole is poured on a smooth board and slices cut as above stated. Habitual eaters take about a tola of this majum for a dose.

Dudhia.—Bhang is cleaned and washed clean as above stated, and then pounded with water till it becomes very fine. The lump is then mixed with milk in the proportion of 2 tolas of the former to 4 kacha seers of the latter, and about a kacha seer of sugar is added to the whole. The above spices and dried grapes are also put in the mixture, which is then poured from a height of about 5 feet into a pot placed on the flour. This operation of pouring continues till the fluid becomes so sticky as to form one single thread from the upper pot to the lower. The more the fluid is sticky, the better is its narcotic quality and flavour. An expert drinker of dudhia can drink about two kacha seers of it at a time. Poor people mix milk and water in equal quantity or use water alone for preparing this beverage.

Some people swallow the lump of the bhang mixed with raw sugar or even alone, and some mix bhang with vegetables and flesh at the time of cooking.

Bhang powder mixed with bread or husk is given to cattle which have become lean. This medicine makes them healthy.

18. It keeps good for one year; after that it loses half its property and causes cough if smoked. It becomes totally useless after three years. The cause of deterioration seems to be the dampness of the climate. In dry climate it is said to continue undeteriorated for a longer time.

19. Ganja is used for smoking and eating. Charas is generally not known; if specially brought, a very little quantity of it is used for smoking with ganja or tobacco, the proportion being about 1 to 20.

20. All bairagis, gosains, fakirs and such other wanderers, Rajputs and Mussalmans, generally Marathas, Lengayets and artizans are less addicted; Jains and Brahmins rarely smoke; Parsis and Hindu cultivators never, perhaps Christians also. I speak of ganja alone, and not of charas.

21. Round ganja is not sold here, the flat is most used, the chur is not sold separately. Well-to-do smokers bring ganja from bazar and separate chur from it for their smoking; chur is thus much more costly and it is more effective than ganja.

22. Charas is generally not known in this part.

23. Not used for smoking.

24. Bairagis and fakirs drink bhang prepared in the manner stated under question 15. Other people are not addicted to it. Some persons prepare dudhia on festive occasions, especially in the hot season and take it at night as a luxury.

25. More ganja is consumed every year. The number of consumers is therefore on the increase. The general increase of population seems to be the chief if not the only cause.

26. Respectable people of the classes stated under question 20 smoke ganja stealthily and moderately. Excessive smokers among them are very rare. Occasional moderate consumers can be found here and there among most classes, but occasional excessive consumers are not to be found anywhere.

27. Bairagis and fakirs smoke ganja or drink bhang to make attention steady and to wipe off fatigue. But among other people, want of occupation is the principal cause which leads to the habit of using the hemp. Association with smokers and drinkers may be said to be the next cause leading to the habit. But in this case also want of occupation is requisite. Traders, shopkeepers, cultivators and such other people who are engaged in their daily work from morning till a late hour at night never think of ganja or bhang, though they are associated with persons addicted to them.

28. Moderate habitual consumer requires about an ounce of ganja daily and an excessive consumer about double of that quantity. Ganja is sold at annas six per seer, or quarter anna's weight per quarter anna when purchased in small quantity. The rate of bhang is half of ganja, *i.e.*, annas three per seer, or half anna's weight per pice.

29. Ganja is first washed clean by rubbing it in the hands with water and then it is put in the chillum for smoking with about half of its quantity of tobacco. Ganja smoked alone without the accompaniment of tobacco is believed to cause madness. If the quantity of tobacco exceeds that of ganja, it produces cough. I have not known anybody using dhatura with ganja or bhang; nor do I know bhang massala. See majum and dudhia under question 15.

30. Ganja is generally smoked in company except in the case of respectable people, who smoke it stealthily in solitude. Women are seldom known to smoke ganja or drink bhang. Majum is sometimes used by them. Children are not addicted to any of these. The habit of smoking begins with youth and grows to its utmost in old age.

31. Bairagis and fakirs who have some good objects in view, as stated further on, cannot do without ganja and bhang, and in their case the habit rarely grows to excess. But in the case of other people want of occupation and association with consumers of ganja and bhang is the chief inducement for forming the habit; laziness being next to it. The same causes may be said to develop the habit into the excessive. The habit once formed is not easy to break off.

32. People come from Northern India consider themselves bound to use ganja and bhang in the festival of Durgapuja in Navaratra. The lower classes in these parts take the liberty of smoking ganja moderately in fairs, but that does not necessarily lead to the formation of the habit.

33. It is regarded with contempt in these parts. Public opinion (both social and religious) is decidedly against the practice. For the Hindu Dharmashastra is strongly opposed to the use of any narcotic or intoxicating drug. A verse of the *Rigved* counts drinking among great sins and classes it with stealing gold, embracing a Shudra woman, acceptance of donation from sinful persons, etc. The word surá pana in this verse includes all drinks affecting the brain. Manu counts mada, which means both intoxication and narcosis, among the ten vices caused by lust (ch. 7, verses 47, etc.).

34. Certainly so. Bairagis and other wanderers cannot live without ganja for a moment, as they value it even more than food. The other classes enumerated under question 20 would also feel it very hard to give up their habit, simply because it is the only luxury they enjoy and because they cannot kill their time without its help. The

number addicted to ganja and bhang would not be less than 20 per cent. in this district.

35. Ganja and bhang cannot be prohibited easily. Serious discontent among the consumers would be the consequence. Still no political danger need be apprehended, at any rate in Southern India, as most of the consumers are poor people having no influence in society. They will probably take to drinking.

36. So far as I have known, no such person can be found. A person addicted to either ganja or alcohol may contract the habit of the other and continue both. A person having both the habits occasionally substitutes ganja for liquor for want of sufficient money, but he then tries to get liquor as soon as possible. Liquor is a more costly luxury than ganja, and this explains why one addicted to ganja would not take to liquor. The influence of liquor is stronger, but of a shorter duration, while that of ganja is milder, but of a longer duration. This also explains why a person addicted to either would not leave it in favour of the other.

37. Charas is believed to produce narcotic effect about twenty times more than common ganja. See answer to question 19.

38. I have stated under question 21 that chur is much more effective than flat ganja.

39. Smoking is more injurious than drinking any preparation of hemp; and eating the same is least injurious of all. Inordinate smoking makes the eyes smoky or red and the lips black, burns the blood and causes cough and constipation. Moderate smoking with nourishing food is least injurious, and proves tonic in some cases. Drinking bhang is not known to cause any of these injuries, even though the food is not nourishing. Eating ganja or majum is equally harmless. All smokers of ganja are required to take a preparation of fowl's meat at least once in six months to avoid these diseases. Those who do not take animal food take butter, milk, or ananas for the same purpose.

40. The properties of hemp or vijoya given in the Vidya Nighantu are as follows:—

Vijoya or hemp is bilious, strong, bitter, hot, constipating, light for digestion; it increases appetite, creates taste in the tongue, causes stupor, gives tone to speech or makes one talkative, causes swoon (when excessively used) and is an antidote to phlegmatic and rheumatic affections. Hemp is further believed to make the attention steady; and for this reason it is smoked or drunk by learned shastries in the north when they attend to their studies. They call hemp plant dnyanavalli, or plant of knowledge. With regard to cattle disease, see the last paragraph of answer to question 15.

41. Ganja and bhang especially are believed to be digestive and tonic when moderately used.

In medicine ganja is used as an antidote on the loss of manly power and on all varieties of diarrhœa. I practice in native medicine, and give ganja on diarrhœa as follows:—Wash good ganja in clean fresh water by rubbing with hands till clean water instead of green issues from it. Then after drying in the sun mix it with a little fresh ghee (about one-tenth of its quantity) by rubbing with the hands. Bake the whole on fire and reduce it to a fine powder by pounding and straining through cloth. Mix the powder with an equal quantity of red or raw sugar. The medicine is ready. This taken from ¼ to ½ tola (according to the patient's strength) at bed time effectively checks all sorts of diarrhœa including long-standing *sangrahani*, in which undigested matter is accumulated and discharged alternately for short periods of about two or three days.

42. I consider so. I have seen persons who smoke ganja once or twice a day and keep excellent health. They devour food like brutes. But they become easily irritable and rather quarrelsome.

43. They become somewhat hot-tempered and quarrelsome. "Bhangat" and "ganjekas" are terms used as other words for quarrelsome. But these generally apply to those who indulge excessively in bhang or ganja.

44. Moderate use immediately produces a state of drowsiness which is not unpleasant; excessive use stupefies or produces delirium, but never intoxication. Moderate use is refreshing, creates appetite and makes the attention steady, thinking on the uppermost subject in the mind and performance of the work in hand, continuing without deviation till the effect lasts. Majum moderately taken at bed time gives good sleep. None of the drugs are known to produce any after-effect, but the want of gratification at the appointed time makes one dispirited or dejected.

45. (*b*) Yes. See under question 39.

(*c*) No. It increases appetite.

(*d*) It causes bronchitis, but checks dysentery and diarrhœa. See under questions 39 and 41.

(*e*) It induces laziness and makes its consumers quarrelsome.

(*f*) See under question 40. But habitual excessive use produces permanent insanity. I have seen in my youth a Brahmin aged 50 who had become insane by the use of ganja and bhang from youth. At the time seen by me he ate nothing but gram boiled with a handful of ganja or bhang, whichever he could get. He did not separately smoke ganja or drink bhang. The gram was once boiled in the morning and consumed till evening. He never shaved his head or beard and appeared like a bairagi with sunken and smoky eyes, dried face and black lips, though he was very healthy. He walked always bare-bodied and bathed daily in cold water. He behaved like a simpleton or a fool, and was perfectly harmless. His wife had expelled him from her house, and he importuned everybody he met to advise her to accept him.

46. See the above answer.

47. I cannot answer this question with certainty, but can tell something more about the same man of whom I have spoken above. He was the son of a sage who is still remembered with respect and regard in the Southern Maratha country, and is said to have worked miracles. The insane son has left two daughters who are perfectly sane, and the son of one of them is now a mamlatdar, though very young.

48. See the above answer.

49. See under question 41. I know nothing about its use by prostitutes. So far as I have known, a moderate use of hemp for a short time to stimulate sexual desire is not at all injurious. I have known no case of impotence produced by hemp.

50. Excessive use of hemp may give rise to impotence as the consequence of constipation, which is its immediate effect.

51. The term "bad character" seems rather ambiguous. A moderate consumer of hemp in any form becomes irritable and raises quarrel at the slightest cause. Quarrelsomeness may lead to causing injury to others. Besides this I am not aware of any other crime which a moderate consumer of hemp is prone to commit.

52. The above character is more marked if the consumer does not become insane.

53. A Lengayet trader of this place, who was much addicted to smoking ganja, killed his own brother in sleep at night. He denied the charge in his trial, but was ultimately hanged. Some other persons using ganja, who pass for respectable men, are suspected of the same crime for the sake of money and other causes.

54 to 56. I have no knowledge of the matter.

57. I have not known ganja used for drinking. As to its being used for eating, see answers to questions 15, 45, etc., where its effects are also stated.

---

117. *Evidence of* GURAPPA RACHAPPA, *Lengayet, Office of Shetti (Revenue and Police), Dharwar.*

1. As I have been serving as Shetti (Revenue and Police) of the town of Dharwar for a long time, I have had ample opportunities to deal with matters in connection with the hemp drugs. The information which I attempt to submit is consequently based on my long experience of the mode of living of the people addicted to the use of the drugs, and also on hearing the cultivators of the plant, contractors of farms, and traders dealing in them.

2. The definitions, as given in No. 2 of the questions, being equivocal, may be accepted for our province.

3. The hemp plant grows spontaneously in the districts of Dharwar, Belgaum, Bijapur, Satara, and Ahmednagar. The plants grow wherever the seeds happen to fall down on the ground in back yards or in other open places; but they do not yield ganja and die away as useless vegetables.

4. Ganja is also known by the following names: (1) Green tobacco, which is called in Kanarese "hasara lambak;" (2) Ascetic leaf, which is called in Kanarese "shiddha patri"; and these terms refer exactly to ganja.

The consumers of ganja are looked down by the public in general, as they are generally called in Kanarese "bhangi mukka, ganji mukka." They cannot claim respect in society. They have preferred calling it by different names from that of ganja, which is odious and detestable.

5. The wild hemp grows wherever the seeds get into the ground, but does not yield any crop; therefore no special conditions of climate, soil, rainfall, etc., can be prescribed to be necessary.

6. The growth of the wild hemp is ordinarily scattered like tobacco plants.

7. The hemp is cultivated in our province for the production of the ganja alone and and not for charas, which is the natural yield of the plants, and also not for bhang, which is obtained in course of the process of the preparation of the ganja and while packing it up for export. It is not cultivated for fibre or seeds.

It is cultivated in (1) Lengre and Devikhindi, and in their surrounding villages in the Vithe taluka of the Satara district; (2) in Savalgi of the Jamkhandi State; (3) in Surdi in the Barsi taluka of the Sholapur district; and (4) in some villages of the Ahmednagar district. It is cultivated in fields of which the soil is best fitted for the purpose. The produce in these places suffices for the requirements of the district comprised in the Central and Southern Divisions.

8. From the information obtainable, it is ascertained that the cultivation covers a larger area than before. The increase in the area has been gradual, because the number of consumers is gradually increasing and the price of the hemp drugs is rising.

9. The land in the first place is turned up, clods broken, and the soil prepared by putting manurial matters for cultivation. The seeds, consisting of male and female and mixed up, are sown from Punarvasu to Pushya Nakshatras in the Hindu month of Shravana (corresponding English month August) in coulter drills. When the plants grow to the height of a foot or so and are dense, the male plants, which do not yield ganja are rooted out, to leave the female ones sufficient space between. If all the plants in a line are female, some of them also are rooted out to allow the rest sufficient space between. The space between the two plants should ordinarily be not less than a foot. If the plants are dense they do not thrive, and the yield is poor and deteriorated in quality. The leaves of the female young plants are nipped off to invigorate their growth. It is harvested in December.

10. The persons who cultivate hemp are not necessarily of any special class. They are of the classes from which fields are cultivated for agricultural produce.

11. The plants cultivated for the production of ganja are never raised from the seed of the wild hemp, but from those grown by cultivation. The seeds of the preceding year are preserved for sowing for the ensuing year.

12. The wild hemp is not generally cultivated for the production of ganja anywhere. The male plant should in either case be extirpated.

13. The cultivation of the hemp plant for ganja is restricted in our province. It is restricted to the districts of Satara, Ahmednagar, Sholapur, and to the State of Jamkhindi, because ganja grows only in these districts. The hemp plant is not grown in the other districts, therefore they are not restricted there. It is cultivated in the above Ghat districts only. The soil for its cultivation should be whitish-black (halyeri) or red soil (masari) with no stones in it. The rainfall required should be a little more than that required for the growth of wheat and a little less than that required for jowari. The climate should be cold. Its cultivation is impossible in Mallad tracts, where the rainfall is generally heavy and the soil is red and stony, and also in rich black soil, where the rainfall is untimely and generally insufficient. There are some places where the soil will be fit to cultivate the hemp plant; but the people there being quite ignorant to cultivate it, it is not

undertaken, as it is restricted by Government, and is attended with inordinate agricultural labour.

14. In our province ganja, charas and bhang are prepared in places enumerated in answer No. 7 to meet the requirements of the consumers in the Central and Southern Divisions.

15. The wild plant is nowhere grown in our province, therefore no description of the products therefrom can be given. I describe the methods of the preparation of the three products of the cultivated hemp plant.

When the plants are full-grown and wide-spread, the tassels shoot out at the top; resinous or sticky substance is found over the stems and the tassels when the ganja is said to have been ripe and the harvesting season approached. Then the tassels are cut or nipped off. The resinous matter which comes in contact with the fingers while cutting or nipping off the tassels is rubbed against an edged thing, and when the matter is sufficiently thick it is collected and formed into small pills. These pills are called charas.

The length of the tassels (or ears) varies in length from two to eight inches. The tassels so removed from the plants are spread over a matting in three layers, one over the other, and covered by another matting, and they are trodden. The tassels stick to one another. The upper matting is then taken away, and the tassels are exposed to open air till they are dried and then deposited in a place. This is called ganja.

Pieces of ganja tassels or powder found lying underneath the tassels trodden under foot and also at the time of packing up are called bhang.

In North Hindustan, towards Benares, the bhang-producing plants are said to be of quite a different kind from the hemp plants known here. The pieces or powder of the leaves of the plants are used in smoking, eating, and drinking. The particulars as regards the preparation of the ganja, charas and bhang for the purposes of smoking, eating and drinking are given in detail in answer No. 29.

16. Bhang is not prepared generally by the people in their houses. It cannot be prepared from the wild hemp plant, because it does not yield ganja, but only seeds. Ganja or charas cannot be prepared from the wild plant wherever grown.

17. The cultivators of the hemp plant prepare the drugs. There is no particular class which is specially set to work at it.

18. Ganja, charas and bhang deteriorate by keeping. They quite lose their effect in course of time. With ordinary care they retain their natural properties for one year; thereafter they gradually lose them. After two years they quite lose their qualities. By exposure to wind and sun the drugs are spoiled, and by moisture and dampness they give out a bad smell. To prevent deterioration the drugs must be kept in a warm and unwindy place, and should not be exposed to open air. The use of the deteriorated ganja is said by its consumers to be burning in the stomach.

19. Ganja is used for smoking, eating and drinking, while charas is used exclusively for smoking. The former, being obtainable in all places, is used for such purposes; but the latter only in places where it is produced.

20. Ganja is used for smoking by all classes of people, except Europeans and Parsis, to the proportion of about 1 to 400 Lengayet and Brahmins, 1 to 100 other Hindus and Musalmans. It is generally so used in all localities.

Charas is produced to a limited extent; therefore the class of people which consumes it and its proportion cannot be satisfactorily ascertained.

21. Round ganja is most preferable for smoking, next to it is flat ganja, and lastly chur ganja. The supply of flat ganja is sufficiently procurable in all localities, therefore it is generally used.

22. Charas is produced in the Central Division, and used only in that division. It is not imported in the Southern Division, as it is not customary among the consumers here (Southern Division) to use it. Foreign charas is not imported into our province.

22. Bhang is used for smoking in all localities by all classes of consumers, except Europeans and Parsis, when ganja is not available. The use of bhang being exceptional, the extent cannot be ascertained.

24. Consumers of all classes of Hindus and Musalmans and in all localities eat and drink bhang. The proportion of eaters is 1 to 1,000 and of drinkers 1 to 500.

25. The use of ganja, charas and bhang is increasing. The reasons for the increase are as follows:—

(*a*) The number of population is increasing gradually, as ascertained from the tables of the general census of 1891.

(*b*) The opening of railway communication, which brings all classes of people from abroad, among whom are consumers of ganja, etc., and takes away people to places where they are compelled or induced to have recourse to it either by the effects or by the influence of company.

(*c*) The number of consumers having thus increased, the number of friends in their company is also proportionately increased; so the use among the friends has naturally become general. Of late the consumers, having regard to the increased number, have not been now proportionately held in so much disrespect as before. This has been a strong incentive for the people of loose characters.

26. The proportion of the consumers is as follows:—

1 per cent. (*a*) habitual moderate consumers.

½ per cent. (*b*) habitual excessive consumers.

⅜ per cent. (*c*) occasional moderate consumers.

⅛ per cent. (*d*) occasional moderate consumers.

—

2

—

27. The following classes of people, except Europeans and Parsis are—

(*a*) Vedantis (philosophers), musicians (gavyis), etc.

(*b*) People of bad characters, bava, bairagi, gosavi, fakir.

(*c*) The sick, who find relief from the suffer-

ings of their sickness in the use of the drugs.

(*d*) The lunatics, whose lunacy has been brought on by excessive use.

28. The average allowance and cost of each of these drugs per diem are as follows :—

	Per diem.	Cost.
Habitual moderate consumers.	½ tola	2 pies.
Habitual excessive consumers.	not exceeding 2 tolas	8 „

29. All classes consuming ganja, charas and bhang by smoking ordinarily mix tobacco alone, or with cloves, mace, nutmeg and cardamom. Ganja and bhang, when used for eating, are generally mixed with jagri, or at times with sugar; while, when used for drinking, jagri, opium seed and bada sape are generally mixed; and at times, to make the preparation flavorous, sugar, opium seed, bada sape, black pepper, dried ginger, cardamom, nutmeg, mace and cloves are mixed. All classes of people follow the same procedure in the use of the drugs for eating and drinking. Tobacco is mixed to lessen the offensive smell; sugar and jagri, etc., are mixed to make the preparation palatable; the opium seed for intoxication; and bada sape, dried ginger and black pepper for digestion. Dhatura or opium is mixed in exceptional cases to make the preparation stronger. This is done by only a few people who are experts.

A preparation known as bhang massala is not sold for the purpose of being mixed with any of these drugs. Bhang massala consists of the following ingredients :—

Horse radish bark, onion seed, toddy, jagri, garlic, mustard seed, yellow turmeric, assafœtida, black pepper, dry ginger, sweet flag, orris root, long pepper, almond, nutmeg, common salt, ink nut, chilly.

30. The drugs are consumed by a few only in solitude and by most in company. It is mainly confined to the male sex above the age of 15 years. Females do not generally consume it. There may be two or three females consuming it in the whole town of Dharwar. Boys below 15 years do not use these drugs.

31. The habit of consuming any of these drugs is easily formed by contracting friendship with those addicted. It is difficult to break off the habit when once formed. There is a tendency in the case of any of these drugs for the moderate habit to develop into the excessive.

32. There are no religious customs which compel the use of these drugs. The social custom among the gosavis, bavas, bairagis and fakirs is to use them at the time of marriage ceremonies, festivals, etc., for the sake of amusement in company. The use is essential in connection with such custom. The use is generally temperate in the beginning, and in course of time it becomes excessive with some consumers, or it becomes the habit. No injurious effects are produced when used temporarily.

33. The consumption of each of these drugs is considered objectionable, because they are intoxicating. Public opinion (social or religious) in regard to the practice is prohibitive. The use of the drugs is generally in disrepute, because it absorbs money, obstructs profession, spoils health, and is generally abominable in the eyes of the public. The hemp plant is on no occasion worshipped by any sects of the people, except that the produce is worshipped before carrying it home by the cultivator as other agricultural produce. The crop when ripe is also worshipped before being reaped, and a caste dinner is given in honour of the same, and offerings are made.

34. It would be a serious privation to all consumers, irrespective of any class, who are excessive in their habits. Such people, in the absence of these drugs, become very deplorable, impatient, irritative, quarrelsome, and shamelessly humble. The moderate consumers in their absence do not feel much beyond than that they are uneasy and restless. The probable numbers of each class are given in answer No. 26.

35. It would be feasible to prohibit the use of any or all of these drugs. In that case it would be consumed illicitly. The only course open to prohibit the use of the drugs is to prohibit the cultivation of the hemp plant. The prohibition would occasion serious discontent among the consumers. Such discontent would not amount to political danger, because the number of consumers is proportionately very small, poor, and weak. The prohibition will create in them a strong incentive to have recourse to alcoholic stimulants or other drugs; but they cannot afford to buy them a quantity sufficient to satisfy their daily requirements.

36. These drugs being available at moderate rates, there is no reason for thinking that alcohol is wished as a substitute.

37. The smoking of charas produces stronger intoxication than that of ganja smoking.

38. Of the three kinds of ganja (round, flat and chur) round is the best, flat better, chur is the last in point of intoxication. Round ganja is not imported into the Dharwar district, because its produce is limited.

39. The smoking of any preparation of the hemp plant is a more injurious form of consumption than drinking or eating the same or any other preparation, because the smoke gets into the breast, which is blackened, and consequently the consumer is impoverished, as is observed from long experience.

40. The use of these drugs is prescribed on account of its medicinal qualities by native doctors, and they are also used in the treatment of cattle disease.

41. The moderate use of charas, ganja and bhang may be beneficial in its effects—

(*a*) As a food not accessory or digestive.

(*b*) It has no staying power under severe exertion or exposure, but alleviates fatigue.

(*c*) As febrifuge or preventive of disease to a certain extent in malarious and unhealthy tracts when mixed with cloves, dried ginger, jagri, and pipli.

(*d*) As tonic when cattle become emaciated and refuse fodder and water. In such cases the use of ganja or bhang will create hunger, strengthen the digestive power, and enrich the blood.

The classes enumerated in answer No. 27 use the drug for the above purposes in the proportion given in answer No. 26. It is the moderate habitual use of the drug and moderate occasional use in reference to which I have explained above.

42. The moderate use of any of these drugs, though not pernicious at once, gradually proves so, because the blood is burnt, strength fails, and the quantity of food is lessened.

43. The moderate consumers are inoffensive to

their neighbours, because they do not lose their temper.

44. The immediate effect of the moderate use of smoking on the habitual consumers is satisfaction, and they are intoxicated for about an hour, and free from all cares. By eating and drinking the effect of intoxication remains for about six hours. This intoxication is looked upon as a relief. It is refreshing. It produces intoxication. It does not allay hunger. It does not create appetite. The after-effects tell upon the health of the consumers. The want of subsequent gratification produces uneasiness.

45. The habitual moderate use of any of these drugs produces noxious effects on body and mind, but not on morality. It burns the blood and impairs constitution. It injures the digestion and causes loss of appetite. It causes dysentery, bronchitis, or asthma. It does not impair the moral sense. It induces laziness, but not habits of immorality or debauchery. It deadens the intellect, and does not produce insanity; therefore further queries need no explanation.

46. By habitual excessive use of any of these drugs the following are the effects:—

They produce insanity, which compels the consumer to be indolent or wandering without doing any harm to others. It is permanent and not temporary. There are no insanes who have their recorded ganja history confessing the use of the drug. When a person has been suffering from mental anxiety or brain disease, he may give himself up entirely to the use of the drug to seek relief from the derangement. It subsequently becomes habit, and such habit, when excessive, makes him lose all self-control, and he thus finally becomes insane.

47. The use of any of these drugs does not appear to be a hereditary habit, nor does it affect in any way the children of the moderate consumer.

48. The excessive use of any of these drugs does not also appear to be a hereditary habit; but the progeny of the excessive consumers become weak and sickly.

49. The moderate use is not practised as an aphrodisiac. A very few prostitutes only use the drugs, such as Toded Raji, aged 35, Musalman; Tari, aged 30, Maratha.

The use of these drugs is not more injurious than its use as an ordinary narcotic. The moderate use of hemp does not tend to produce impotence.

50. By excessive use the blood burns and strength fails. It is not used excessively by prostitutes. It is more injurious than its use as an ordinary narcotic, such as loss of appetite, weakness of digestive power and impotence.

51. About half the bad characters are habitual moderate smokers of ganja. They smoke all round the year, and drink it in the form of ghota in the hot season only in addition to smoking. The moderate consumers do not commit any crime or crimes of any special character. The practice of drinking ghota in winter brings on pain in the body.

52. About one-fourth of the bad characters are habitually excessive smokers of ganja all round the year. They drink it as ghota in addition to smoking in hot season.

53. The excessive indulgence in any of these drugs incites to unpremeditated crime, violent or otherwise. I do not know any case in which it has led to commission of homicide.

54. These drugs are not used by criminals to fortify themselves to commit any premeditated act of violence or otherwise.

55. Criminals, in order to further their designs, induce their victims not accustomed to use the drugs to partake of any food or confection prepared by their mixtures and make them unconscious. Complete stupefaction by administering this preparation is obtained to gain their object. Without the admixture complete stupefaction cannot be caused.

56. The effects of hemp used (*a*) in moderation and (*b*) in excess, modified by the admixture of sugar, jagri and other sweet substance are worse, and by the admixture of sour and cold substance are less than those detailed in answers Nos. 45 and 46. About eight years ago some people of Dharwar accustomed to use ganja mixed dhatura in it, prepared curry, and ate it with wheat bread in the afternoon. An hour after they were intoxicated, and while going back to their houses in intoxication they were unconscious and could not take care of themselves, and were also naked. If the admixture is administered to those who are not accustomed to the use of the drugs, the intoxication continues for about 24 hours.

57. Ganja is used for eating and drinking, but charas only for smoking mixed with tobacco. In smoking ganja, tobacco is mixed by half the quantity of ganja, and in smoking charas it is mixed by double.

58. I consider the administration is capable of improvement.

59. In paragraph 9 of the ganja license, ganja is permitted to be sold not exceeding 40 tolas to one person. This concession allows a number of people to gather together to indulge themselves in consuming the ganja. This assembly, idle as it is and spendthrift, conspire together in committing offences and bad actions. It should therefore be ruled that one person should have only five tolas or less once in a day.

60. The existing system works well and requires no modification.

61. Yes, they are sufficiently controlled, and that the system requires no modification in any respect. For producing charas only the hemp plant is not cultivated.

62. The hemp plant is not cultivated for the production of bhang.

63. There is no objection to the present system of vend of preparations of ganja, charas and bhang being continued.

64. I have no objection to the existing regulations governing the export and import of these drugs, or of their preparations from and into your province, or their transport within the province.

65. The price of ganja is more and that of bhang less. This being the case, the taxation on both is alike. The rate of tax should be in proportion to their price, and they should not be imported or exported together covered by one and the same pass. The rate of tax on bhang should, in my humble opinion, be one-tenth on that of ganja. The amount of tax on the drugs and alcohol is proportionate to their price. Charas is not sold in shops, because the production is not sufficient to export, nor is there any demand for it.

The tax on it is therefore not imposed.

66. No, not necessary.

67. None whatever.

68. None.

69. The wishes of the public in general are not consulted at present in any way before a shop is opened in any locality. The opinion of the Taluka Revenue Officer (mamlatdar) is asked by the Collector, and the mamlatdar consults the village officers. Local opinion is desirable, so that the respectable and well-behaved persons in the village or town should have a voice in the welfare of the village community in general.

70. There are no such facts to which I should draw attention. Duty is paid in respect to the ganja and other hemp drugs used. It is likely that there may be some people who may be using drugs bought from the Native States and removed to others within the limits of the British Government; but it is impossible to detect such illicit transactions inasmuch as the Native States are, I think, not bound by the regulations in force in British India.

General information.

Boja is prepared as follows:—Broken jowari is steeped in water for three days; then the water only is boiled, and in it powder and the steeped broken jowari with bhang are put. Again the whole mixture should be boiled, and, when it becomes thick, the stuff should be spread on a matting. Over it the flour of germinating ragi separated from its germs should be sprinkled. This preparation is then put into an earthen jar, which should be buried half in the ground, and should be allowed so to remain for two days, then it should be strained twice and the liquid drunk. This liquid is called boja, which possesses intoxicating power.

Majum is prepared as follows:—

(*a*) Ordinary preparation of bhang should be fried on an iron pan and should be powdered and strained. This should be mixed with boiled sugar and formed into slices. The mixture should be in proportion of one seer of bhang to six seers of sugar. A seer is equal to ℞20 weight.

(*b*) Rich or sumptuous preparation of bhang (seer 1) should be boiled in ghee (seer 1), and in it the following ingredients should be mixed:—

	Tolas.
Nutmeg	1
Dried grapes	5
Saffron	¼
Almond	20
Cardamom	½
Refined sugar	80

The whole mixture should be prepared in the form of cakes and cut into small slices.

---

118. *Evidence of* LALDAS LAXMONJI, *Kshatriya, Solicitor's Clerk, Bombay.*

1. Personal experience for the last thirty years.

2. I know bhang by the names of bhang, subji, maya and dnyanavalli, and ganja as ganja. Flat ganja is used in Bombay.

19. Ganja is used only for smoking in Bombay.

20. Hindus and Muhammadans smoke ganja here. The proportion of ganja smokers is larger among Hindus than Muhammadans. Ganja is smoked among all castes of Hindus in general.

21. Flat ganja is the only ganja obtainable here.

23. Bhang is never used for smoking.

24. Bhang is generally drunk and not eaten. A small quantity is however eaten. The bhang that is eaten is first cleansed by washing and removal of dirt. The bhang is then fried in ghee on an iron pan and mixed with spices, such as pepper, almonds, sugarcandy, poppy seeds, and various other kinds of seeds. The mixture is next powdered, when it is ready to be eaten. This preparation is usually eaten on journeys and when the consumer has difficulty in preparing the drink.

Jains, Brahmins, banias, Kshatris and some labourers among Hindus consume bhang. Muhammadans also use bhang, but in fewer numbers than among Hindus. Bhang is generally eaten by Hindus of the castes mentioned above.

25. I think there is a small increase in the number of ganja smokers in Bombay. I have formed this opinion from what I see.

27. Both Hindus and Muhammadans smoke ganja. More Hindus smoke than Muhammadans. Kshatris, banias and Hindus of the labouring class chiefly smoke ganja. Sadhus smoke ganja largely. Among Muhammadans a number of fakirs smoke ganja. The practice of smoking ganja takes its rise chiefly on account of luxurious habits with a view to a relief of miseries and anxieties and for medicinal purposes. Sadhus smoke ganja chiefly with the object of producing concentration of mind in their devotions.

28. A moderate habitual consumer of ganja will smoke one tola per diem, and this will cost him one anna. An excesssive habitual consumer of ganja will smoke three tolas a day, which will cost him three annas.

An habitual moderate consumer of bhang will drink about quarter of a tola a day, costing him 3 pies, which includes the cost of ordinary spices also. The habitual excessive consumer will drink one tola of bhang, costing him about one anna with ordinary spices. The quantities mentioned here of bhang refer to quantities made clean and ready to be consumed.

29. Ganja is ordinarily smoked with tobacco in equal parts. Exceptionally the ganja is washed in rose water, and a particle of musk is added with tobacco. Ganja is sometimes smoked from a pipe prepared from a piece of sugarcane.

It is essential that tobacco should be mixed with the ganja to be smoked, otherwise the ganja could not be smoked. The ganja is washed in rose water with a view to making the smoke cooler and pleasant. A particle of musk is added to perfume the ganja smoke. Ganja is smoked from the sugarcane pipe to cool the smoke.

Bhang is ordinarily mixed with water, with a little black pepper and sugar added to it. Exceptionally it is prepared in milk with black pepper, cardamoms, sugar, saffron, almonds, rose buds, poppy seeds, cucumber seeds, white pumpkin seeds, melon seeds, and other ingredients. The black pepper is added to bhang with the object of preventing stomach-ache and wind. The other things are added with the view of making the drink pleasant. Dhatura is never used so far as I know with ganja or bhang. I know of no preparation known as bhang massala.

30. Ganja is usually smoked in company; bhang is also drunk in company. Both ganja and bhang are, however, used by individuals when alone. Ganja is usually smoked by males and the same may be said with reference to bhang. In the course of my experience I have seen only about three females smoking ganja and drinking bhang; and these women were not of good character. The consumption of ganja and bhang is seldom begun before the age of sixteen, and the use is continued to all ages. It is not usual for children to consume any of these drugs.

31. The habit of consuming ganja and bhang is easily formed if the individual associates with persons who use these drugs. If the habit of consuming ganja and bhang becomes habitual, it is difficult to break it off. There is some tendency for the moderate habit to develop into the excessive.

32. I know that offerings of bhang are made to the god Shiva in the months of April, May and June. During August and September these offerings are made also. Bhang mixed with water or milk is poured over the ling of Shiva. These offerings are made with a view of gaining favour of the god. It is a very common custom with ganja smokers, before beginning to smoke, to make offering by using the words "*Lena Shankar*" or "*Lena Babulnath*" or "*Lena Bhuleshwar*" or "*Lena Babulnath tekariwalle, najar lagave chat mar jave.*" After making the offering to the god the ganja smoker sometimes says: "*Jine nahi pi ganje ki kali o ladkese ladki bhali.*"

The offering of bhang to Shankar or Shiva is common and understood to be pleasing to the god. The custom of offering of bhang to Shiva is not likely, I think, to lead to the formation of the habit of using the drug.

33. The smoking of ganja in public is not regarded as respectable. I know that highly respectable and enlightened native gentlemen do smoke ganja privately. The public opinion is that it is not respectable to smoke ganja. The drinking of bhang is not considered as disrespectable as the smoking of ganja. Still an individual does not like it to be known generally that he drinks bhang. I attribute the sentiment to the fact that excessive use of any or these drugs may cause a man to speak or act foolishly. I know of no custom of worshipping the hemp plant.

34. It would be a serious privation to consumers of ganja and bhang to forego the consumption of these drugs. It would be a privation to break off the habit. In some cases life and health will suffer, and it would be a serious deprivation in connection with the religious custom connected with the offerings to the god Shiva.

35. I do not think that it would be feasible to prohibit the use of any of these drugs. The drugs will be illicitly consumed if at all obtainable. Prohibition could only be enforced by stopping the cultivation of the hemp plant. Prohibition would certainly occasion serious discontent among the consumers. In my opinion this discontent would amount to a political danger. Prohibition would be followed, in my opinion, by recourse in the greater number of cases to alcoholic stimulants or other drugs.

36. I think that alcohol is now being substituted for these drugs to a certain extent especially among those people having an English education. I attribute the cause to fashion. I speak from my personal experience.

37. I am not well acquainted with charas smoking. I have smoked a very few times. I found charas very much stronger than ganja in its effects. The intoxication from charas is greater than from ganja, the throat is more parched, and the eyes become redder than when ganja is smoked.

38. I know flat ganja and garda. I have never myself smoked garda, but I have heard of its being smoked by the very poor classes of smokers.

39. The least injurious form of the use of hemp drugs is bhang drinking. Ganja is, I know, very occasionally consumed in the form of a drink like bhang. This mode of consuming the drug is, I believe, injurious. It is less injurious to smoke ganja than to drink it. On one occasion I happened to drink ganja and found the effects so strong that I had to take quarter of a seer of ghee to moderate the effect.

40. Hemp drugs are prescribed by native doctors on account of their medicinal properties. Ganja smoking is prescribed for indigestion by native doctors. In my own case, when I was about eighteen years of age, I first began to smoke ganja as a medicinal remedy, and the effect of the remedy was successful. Bhang is prescribed by some native doctors as a tonic.

41. The moderate habitual smoker and the moderate occasional smoker of ganja finds that the smoking of the drug improves his digestion. The smoking alleviates fatigue. It enables the individual to concentrate his thoughts. It acts as a preventive of disease in unwholesome climates and where unwholesome water is only obtainable. The moderate habitual and moderate occasional use of bhang before meals acts as a tonic or appetizer.

42. I regard the moderate use of ganja and bhang as beneficial and harmless. I have already given reasons for these conclusions.

43. The moderate consumers of ganja and bhang are quite inoffensive to their neighbours.

44. The immediate effect of the moderate use of ganja on the habitual consumer is instantaneous intoxication. It sets the mind at ease. It produces an appetite. The effect lasts for one to two hours. Immediately after finishing my smoke of ganja I drink about half seer of milk, and this prevents the parching of the throat and refreshes me. I enjoy good sound sleep afterwards and suffer no ill after-effects. The want of subsequent gratification does produce longing and uneasiness. I have been a moderate habitual consumer for the last thirty years.

45. The habitual moderate use of ganja in my own case has not produced any noxious effects, physical, mental or moral.

I am now forty-nine years of age and enjoy excellent health. I eat well and sleep sound. I work at home in the mornings and attend office usually from 11 A.M. to 5 P.M. In my own case, when I have a difficult case to look into, I usually take it up after my smoke, and I find that I can deal better with the matter than I could without first having smoked. In my opinion the moderate use of ganja brightens the intellect. I think it absolutely necessary that the ganja smoker should have nutritious food.

46. The habitual excessive use of ganja and bhang is bad. The effects of such a habit are very much worse on the individual in the case where he is unable to obtain good food.

47. In my own case I have a son aged twenty-two years. He is my only child, now alive. He does not indulge in intoxicants of any kind and

does not even smoke tobacco. He has passed his matriculation examination and now assists me in my office as Assistant Managing Clerk. He is physically a fine young man and a good cricket player.

49. I have heard that some people smoke ganja as an aphrodisiac. It is said when the drug is used for this purpose it must be used in conjunction with good food. I do not know that prostitutes use hemp drugs as an aphrodisiac. In moderation and with good food the use of a hemp drug does not tend to produce impotence.

51. No large proportion of bad characters are habitual moderate consumers of hemp drugs. There is, so far as I know, no connection between the moderate use of a hemp drug and crime.

52. There is no large proportion of bad characters habitual excessive consumers of hemp drugs. I do not know that there is any connection between the excessive use of hemp drugs and crime.

53. Excessive indulgence in hemp drugs does not, so far as I know, incite to unpremeditated crime of any kind. On the contrary, the bhang drinker is rather timid under the influence of the drug, and the same may be said of the ganja smoker to a lesser degree.

I know of no instance in which the excessive indulgence in hemp drugs has led to temporary homicidal frenzy.

54. I know of no instance in which criminals have fortified themselves by using hemp drugs to commit a premeditated act of violence or crime.

55. I know of no instance in which criminals to further their designs have induced their victims to partake of a hemp drug with the object of stupefying them. I do not think complete stupefaction could be induced by the use of a hemp drug alone.

56. Tobacco is mixed with ganja so that it can be smoked easily. Spices are mixed with bhang to make it cool and pleasant in taste.

I know of no case in which dhatura has been mixed with hemp drug for personal consumption or for administration to others.

57. Ganja when eaten or drunk is much more powerful in its intoxicating effects than bhang. It is, I think, injurious to use it in these forms. Ganja is very seldom eaten or drunk.

Oral evidence.

Question 1.—The drug I have been in the habit of consuming for the last thirty years is ganja. I smoke it every evening, and my ordinary allowance is half a tola of the uncleaned ganja, which means about half a tola of cleaned ganja. I now smoke alone, for the friends who used to smoke with me are dead. The ganja is mixed with tobacco for smoking. The quantity of tobacco used is something less than half the quantity of ganja, if the tobacco is strong. Ganja cannot be smoked without tobacco, unless it is fresh ganja. That is my information. I have never seen ganja used without tobacco. By fresh ganja I mean ganja which has just been manufactured from the plant. In smoking a chillum of ganja I take about 12 draughts. But it is injurious to take a very long pull. It causes cough and obstruction of the breathing. I have never suffered from asthma or bronchitis, and I am forty-nine years of age. I am not conscious of having suffered any harm from the drug. When I began smoking the effects were more marked than they are now. I was never incapacitated for work or rendered insensible. But it is necessary to take food soon after smoking to allay the irritation of the throat, and the food should consist of such things as milk or butter. Unless food of this kind is taken, the eyes and throat become heated, and in time the eyesight would be impaired. I am not aware of any other bad consequences. I have seen bad effects in other people.

Question 21.—I know three kinds of ganja—flat ganja of the Deccan; baluchar ganja of Benares, which is also flat and more powerful than Deccan ganja and dearer, but cannot be bought in the market; and the fresh ganja, which sometimes comes from Kathiawad. The last is slightly more powerful than the Deccan ganja, but less so than baluchar. The ganja which is most powerful is also most heating and most dry, and its effects are most lasting. Headache sometimes follows the intoxication of ganja. If ganja is stale or has not been properly washed it will give headache. I prefer Deccan ganja.

Question 44.—The moderate use of the drug, even without the accompaniment of good food, will not produce insanity. I know of two or three cases in which insanity has resulted from the excessive use of the drug, when a sufficiency of good food has not been taken. A bania, Hargoran, who lives near me in Bhuleshwar, is one of the cases, and the best of them. About fifteen or sixteen years ago he became insane, and he is still insane. He has never been confined in an asylum. He is harmless. He neglects his dress and talks nonsense. He has lost his wife and two children. That was two or three years before he became insane. He did not appear to be very deeply grieved by the loss of his wife and children, but not long after that event he suffered losses in his business, and that affected him a great deal. I did not know his father or mother or their parents. I never heard of any insanity among them. He has no brothers. He had no bad habit except smoking excessively. Being a bania, he could not take liquor. He used to smoke alone at all hours, day and night. I have no means of knowing whether he had vicious habits. He did not mix any thing but tobacco with his ganja. I don't know his habits now, as he wanders about, but he may still smoke. Insanity came upon him gradually, but there was no amendment after it began. It took nearly three or four years to render him insane. All that while he continued smoking ganja even more than before. It was the ganja and the grief at loss of business which together drove him mad. I think he would not have become so if his affairs had remained in a satisfactory state. I have never heard him allude to the loss of his business since he became mad. This is the most prominent case in my mind. It is not so clear in other cases that the insanity was due to the ganja. I had known him for seven or eight years before he became mad, and he was not different from other people. He was about 50 when he went mad. He had been, as far as I know, a smoker from the age of 30 or 35. I made his acquaintance twenty-three or twenty-five years ago. He was living in my street. I am a Kshatri and he is a bania. He used to smoke many times a day when I first knew him. I seldom smoked with him; but when I happened to sit with him, I heard him and his friends say that he smoked frequently. It was seven or nine years before his character showed any symptom of change. He kept a grocer's shop, and made up turbans. His wife died four or five years after I made his acquaintance. He had two children,

boys, of three and five years of age, when I made his acquaintance. The children died after his wife had died. They all thus died at intervals of one and a half years. He lost his business perhaps two years after his wife's death. He became bankrupt through bad debts. I noticed the first change in his character two or three or four years after he lost his business. He began to talk foolishly. He talked much and without meaning. I thought he was becoming mad from excessive smoking. There was nobody to look after him then, and there is no one now. He got his food by begging, disregarding caste and creed. Since he became quite insane his caste-fellows gave him food. He had a house of his own, but was fed by charity of others. Sometimes he got plenty of food, and sometimes he was in want of it. Before he became insane he got his ganja and his food by the profits of his business of folding turbans. He never suffered from want until he became insane. I have occasionally had to give or receive instructions connected with insane persons in the course of my business. Similar symptoms to those which I observed in this case might be induced by grief, anxiety, or through loss of business. I can't speak about injury to the head or epilepsy or syphilis. Injury to the head could not have caused insanity in this case, because he never received a blow on the head. I cannot say whether sexual excess could lead to insanity of the kind which characterized this case. Such cause would produce a different sort of insanity, in that the insane would not talk so foolishly as this man did. I am aware that insanity can be caused by sexual excess. There was not such excess in the case I have described. I knew the man's character, and no enquiry on the point was therefore necessary. I can distinguish between insanity caused by grief, and insanity brought on by excess of ganja. In the latter case the man would be more foolish than in the former. The difference is only a matter of degree. In attributing the insanity in the case described partially to the loss of family and business, I bear in mind the interval which elapsed between those events and the onset of the insanity. I have noticed among sadhus and fakirs some cases of insanity caused by ganja smoking, but they were not so completely insane as the bania described above. There were cases of temporary fits of insanity, and I know no case of permanent insanity but that described. I think I know these people well enough to say that their insanity was due to excessive use of ganja and want of proper food. The fits would last for two or three hours at the longest. In these fits they would abuse people regardless of the persons they were addressing. I have even seen them abuse policemen. I cannot be sure that these fits were not mere fits of irritation or excitement or rage.

Having had my statement read over to me, I state with regard to the intervals between the main facts, that as a considerable time has elapsed I cannot speak accurately regarding them, but my impression is two years elapsed between the last of his troubles and the first symptoms of insanity. I am quite positive that the troubles all occurred before the insanity began.

EVIDENCE OF SIND WITNESSES.

1. *Evidence of* Mr. H. E. M. James, *Commissioner in Sind.*

25. The consumption in Sind of ganja, charas and bhang is not increasing to any appreciable extent amongst classes not hitherto accustomed to the drugs, according to the best of my belief, based on enquiries from Natives well able to judge.

The population has increased in round figures from 2,200,000 in 1872 to 2,870,000 in 1891. In 1878 through communication by railway was opened between Sind and the rest of India.

Partly then, owing—

(*a*) to increase of population,

(*b*) to the greatly increased comfort of the population (the doubling of the land revenue in twenty years, and the great rise in wages are evidences of this),

(*c*) to Sind having been rendered easy of access to the consumers of these drugs,

an increase in revenue from hemp drugs was to be expected; and we find accordingly that the revenue has increased in nineteen years from Rs. 76,680 to Rs. 165,310, *i. e.*, it has more than doubled. Factor (*c*) is, however, undoubtedly the most potent of the three. No one who revisited Sind as I did in 1891, after an absence of seventeen years, could avoid being struck with large number of gosais, fakirs and wandering ascetics who now throng the province. Partly because Sind is on the way to Garh Hinglaj (a shrine in the Persian Gulf) and partly because the Hindu tradesmen of Sind, formerly very lax observers of their religion, are now paying greater attention to it and imitating the orthodox of India proper, gosais visit Sind in much larger numbers than before, and they meet with much favour from the Hindu community, which is growing in wealth. The small indigenous colonies of beggars have also been largely recruited. The beggars who, as a class, consume hemp drugs, are for all these reasons, both much more numerous and better off than before, and so the consumption of the drugs appears to be larger than the increase in population itself would naturally warrant. Briefly stated, the classes in Sind principally addicted to the drugs, *i. e.*, the different classes of ascetics, have increased largely in numbers and prosperity and their total consumption has increased proportionately. The census figures of 1891 show 18,594 devotees, singers and sadhus (holy men or gosais) in Sind.

I learn at the same time, on good authority, that in the large towns of Sind, and even in rural tracts near Baluchistan, the use of both bhang and ganja is extending amongst the labouring classes. Seedees (men with African blood in them, the descendants of former slaves) have always been addicted to the drugs and so have the Brahuis of Kalat and Afghans of Kandahar, from which, the last-named place, charas comes to Sind. And the unprecedented rise in wages during the last few years has led to the use of the drugs becoming more fashionable amongst men of the poorest coolie class. On the other hand, there are persons who maintain that the repression of smuggling has of late enhanced the drugs in price and actually deprived some of the poor of a luxury which was formerly within their means. On the whole, I should say that the labouring classes of Sind consume hemp drugs more than they did twenty years ago. There is, I believe, some consumption of the drugs in the Native Army.

35. (*a*) It would certainly be most difficult indeed—I should say absolutely impossible—to enforce total prohibition, as distinct from checking the trade by increasing the price, because hemp drugs are small in bulk and smuggling would be very easy and an army of Native subordinates and preventive officers would be needed.

(*b*) Illicit consumption would surely go on, just as the consumption of liquor has (I understand) in American towns where total prohibition has been tried.

(*c*) The only way of enforcing prohibition would be by forbidding the growth of the plant, making the importation or possession or preparation of it punishable by law, and giving the Police power to search individuals, not only on frontiers, but everywhere in the country itself. These measures would be very unpopular, and even then they would be ineffectual, because the plant is found in Native States, and also grows wild in large quantities in Kashmir and Northern India, as well as (so I am told, but I doubt it) in Baluchistan.

(*d*) Of course consumers would be very discontented if their supply of drugs were cut off. And the large number of respectable people who take bhang in water as a refrigerant in the hot weather would be justly incensed.

(*e*) Yes—Every wandering fakir (and the Commission must know how, all over India, the richest and most enterprising of merchants, and in Native States, even high officials pay abject homage to these ascetics) would preach to his disciples the "zoolum" of the Sirkar, and say it was only another step to interference with religion. We are accustomed to despise this kind of thing too much. Taken with other things the stoppage of the drugs would be politically dangerous.

(*f*) I cannot say how far the prohibition of drugs would lead the consumers to take to alcohol or other drugs. The tendency would be for the poor to adhere to their use, as, even if smuggled, they are cheaper than spirits. The better-to-do might in time take to alcohol.

41. The moderate occasional use of bhang is undoubtedly believed by the most sober and well-conducted of natives to be beneficial in cooling the blood in the hot weather. I have found this both in Guzerat and Sind. Ascetics, who

travel long distances and undergo severe exposure to sun and frost alike, in an almost nude condition, do find that the use of ganja and charas alleviates fatigue and gives staying—power.

45. I have often made it a practice to converse with ascetics, as some are very intelligent and able to give interesting accounts of their travels, and I should say that on the whole, the use of drugs by them does not injure their health. Many are often very robust specimens of humanity, though of course their wandering life is not a healthy one in many respects, and there are many feeble ones amongst them. The ordinary sepoy or coolie who takes hemp drugs, in lieu of alcohol, does not appear to suffer from it.

I have known one case in which a native of India, one of the best servants I ever had, became partially insane, and I attributed it, whether rightly or wrongly, to smoking ganja. And I have heard (I believe on accurate authority) of students at Cambridge losing their mental power owing to their having become addicted to the drug. I have seen lunatics in Indian Asylums whose insanity was attributed to the use of ganja.

The conclusion which my necessarily limited observation leads me to is, that if an individual takes to ganja smoking merely as a vicious habit, as a man may in England take to excessive liquor solely for the pleasure of its intoxicating effects, and becomes a slave to it, insanity or at least weakened intellect is very likely to follow. But if habitually indulged in moderately, I believe there are no special ill-effects. Ganja smoking is frequently associated with immorality, in much the same way as betting is with horse-racing; and even the drinking of bhang is reprobated by purists amongst natives. But whether ganja produces immorality, or immorality a love for ganja, I cannot say. Probably the association is due to the drugs being most in favour with the lowest and least educated or moral classes in the great cities. It is a truism that the surrender of the will to any habit, and the consequenet indulgence of that habit, even if it be only tobacco-smoking, immoderately, impairs a person's general power of self-control. But I have no reason for thinking hemp drugs are an incentive to crime.

53 (51 to 55). I have already mentioned the case of a servant, a North-West Province Brahmin. He attacked a man with a sword for not procuring him a coolie, and was sent to jail for several years. He may have had brain disease apart from ganja, as he was always rather "queer," even before he took to it, but I always assumed that ganja had a good deal to do with his mental breakdowns. After coming out of jail, there seemed no change in his mental condition, and he would attack individuals who were quietly talking or even passing on the road, under the delusion that they were mocking him.

It has always been said, *e. g.*, in the account of Clive's defence of Arcot, that Muhammadans take bhang in order to rouse their courage, but thoroughly well-informed Sindhis tell me that this is a myth altogether. Habitual, and especially immoderate, use of bhang and ganja lead, on the contrary, to grave nervous depression and symptoms of fear, like those produced by delirium tremens. "Charas" is the only hemp preparation that does not actually damp a man's courage. If a criminal wishes for Dutch courage, in Sind he takes liquor.

Cases of dhatura-poisoning, both by mixture in hukas and in food occur, but I cannot remember a case in which adulterated or even pure ganja was used to procure somnolence on the part of the victims.

58 to 70. I do not think that any alteration in the law or administration is required at present. So far as I know, no such evil results, either physical or moral, have presented themselves as to justify any interference.

65. Compared with other intoxicants, hemp drugs are lightly taxed. For instance, a retail seller in Sind tells me that a novice to bhang drinking could get intoxicated for 6 pies, while liquor, to have the same effect, would cost 2½ annas. One accustomed to bhang drinking would need 2 annas worth to produce the desired effect, while a drunkard could take 4½ annas worth of liquor or more comfortably.

Assuming (though I have no evidence of it) that the effect of the raising of the excise on liquor has been to stimulate the consumption of hemp drugs instead, the circumstance, if proved, might be considered to point to the desirability of raising the duty on these drugs more to a level with that on liquor. But I would certainly not recommend any attempt of the kind. The following are my reasons:—

First.—We practically levy the highest excise possible on these drugs by our system of selling farms by auction. The farmers know the cost of the raw material, and bid against one another, till the sum paid for the farm only leaves a reasonable remuneration to him, as interest on his capital, wages for his labour and recoupment for his risk, after paying expenses.

Secondly.—The only way to excise the drugs and so raise their selling price, would be to initiate such a careful control over their production, importation, and retail sale, involving measures for the prevention of smuggling, that the expenses would be very considerable, and not recouped out of the increased receipts, for the consumption will fall off.

Thirdly.—If the price be raised so as to approach the price of liquor, the best-to-do consumers may eventually take to alcohol, which imparts a much greater stimulus to crime than these drugs, while the poorer will almost certainly find dhatura, or some other vegetable substance, out of which to manufacture or distil intoxicants at a cheaper rate than liquor.

Fourthly.—The recent interference with liquor, at any rate in Western India, has been sufficient interference with the luxuries of the poorest classes during the present generation. The artificial increase in the selling price of liquor has fortunately been accompanied by a general rise in wages and prosperity and has, therefore, not been seriously felt. There is always, however, a substratum of very poor in India, and any attempt to make their intoxicants too expensive, must result in failure, apart from the discontent it would cause.

Fifthly.—The whole question of hemp-drugs is not worth the trouble involved in meddling with it. Overworked as all officials are, the time that would have to be devoted to introducing an elaborate system of hemp excise, would only be taken away from the consideration of

matters of much greater urgency, *e. g.*, agricultural indebtedness, religious animosities, the growth and repression of crime, the extension of communications, and irrigation, all of which are a never-ending source of anxiety.

I do not go so far as to say that the bringing of the consumption of hemp drugs under stricter control would be impossible, but in my opinion, the game would not be worth the candle.

68. We have licensed houses in Karachi for the sale of bhang ready made, in addition to the ordinary shops licensed for the sale of the raw materials. But we have no ganja or bhang "dens" where the stuff must be consumed on the premises.

69. No concession of "local option" in the matter of hemp drug shops has been made nor is it necessary. Where there is sufficient demand, the farmer applies for a shop and retailers are all grocers, and the drug forms a small addition to their ordinary stock of groceries. The farmer's self-interest no doubt might be supposed to induce him to stimulate sales. But in three out of five of the Sind districts, the shops are actually fewer in number than nineteen years ago. Even in the large district of Shikarpur also, where (I imagine, owing to the advent of people from across the border, for the construction of railways, and also to the Afghan War) shops increased from 179 in 1873 to 265 in 1881-82, the figure has receded to 246 in 1892-93. And in Thar and Parkar, where the shops have also increased, the present figure of 29 is only 5 more than it was fifteen years ago. A farmer does not, like a publican at home, stimulate sales by accessories calculated to make his shops attractive. He simply depends on the demand. The Collector and District Magistrate, after consulting the local officials, is able to judge whether a shop should be opened or not, and local residents other than the consumers of the drug take no more interest in the matter than a tailor in an English country town in the question whether a particular grocer down the street should have a license to sell claret or not. The subordinate officials whom the Collector would consult before deciding, *e. g.*, the Revenue and Police heads of the taluka, no doubt ask the local zemindars or Hindu Mukhi their opinion upon this as upon most matters affecting the peace and comfort of the village. But the matter is too insignificant for any formal rule to be made or to be necessary.

70. We occasionally catch a load of hemp drugs being run across from Cutch, but all told, the smuggling, especially across the desert, is of no importance to the revenue. We may have a treaty some day with Khairpur which will prevent any little smuggling there may be from that State, but there is no hope of such a measure during the lifetime of His Highness the present Mir.

Letter from Mr. James *appended to his evidence.*

In continuation of my answer to question 35 (*c*) I have the honour to inform you that on a recent visit to the Khirthar range of mountains, which separate Sind from Baluchistan, I there found the so-called wild hemp alluded to, growing freely in different localities within the hills. Mr. Woodrow of the Poona Botanical Gardens, to whom specimens were sent, identifies it as *Hyoscyamus muticus*, Linn., a henbane, closely allied to the poisonous English plant of that name, which is used in medicine.

The Baluchis stated that if small quantities were mixed with bhang and an infusion drunk it created intoxication very rapidly, and that too large a dose produced absolute madness. Not long ago three men indulged too freely, with the result that they stripped off all their clothes and danced and rushed about nude, being temporarily quite out of their senses.

This wild plant is, therefore, quite different from the common wild hemp that grows freely in Kashmir and the Tarai, and has the merit of being much more injurious.

---

2. *Evidence of* Mr. R. Giles, *Collector, Shikarpur.*

1. As a Revenue Officer of twenty-three years' service, all of which has been spent in Sind, I have had some opportunities of forming an opinion as to the working of our present system of excise administration, of talking to the farmers who purchase the right to retail hemp drugs, and of observing in the towns and villages the classes who consume them, and their effect on the consumers. I have not, however, any special knowledge on the subject, but I have utilized my present position to secure from others the best possible information regarding the matters specified in the questions.

2. Charas and ganja are not manufactured in Sind. I cannot, therefore, speak for the accuracy of the definition. They are, however, imported in small quantities, and known by those names. Bhang includes the seed and also the small stalks when broken up and dried of the hemp plant.

3. Wild hemp is said to grow in the Sind hills. I have never seen it in the plains.

4. It is spoken of as kohi bhang, *i.e.*, hemp from the hills.

5. I do not know what special conditions are necessary for its growth.

6. I do not know whether its growth is dense or scattered; but in the Sind hills the latter may safely be inferred, as the hills are for the most part bare and barren.

7. Hemp in Sind is cultivated for use as bhang only, never for ganja or charas; and as those preparations of the drug are not prepared in Sind, and only imported into it to a very limited extent, to be used chiefly by foreigners, I have for the most part withheld any remarks regarding them, thinking that such would be far more reliably obtained in the provinces where they are prepared and in common use. Sometimes, but very rarely, the thick stalks of the plant are placed in water to rot, and with great labour rope or twine is made from them by individual persons for special purposes; but the plant is never grown for the use of its fibre or of its seed only.

8. There has been no considerable fluctuation in the area under hemp in recent years. The landholder cultivates it with the sole object of getting a larger profit from it than from other crops; but he is in reality the slave of the licensed farmer who can buy his crop or not if he likes. Cultiva-

tion, therefore, never increases beyond the farmer's requirements.

9. Being dissatisfied with my subordinates' reports on the methods of cultivation, I sent for two landholders who regularly cultivate small areas with hemp. Their accounts varied very slightly, and were as follows :—

Hemp is usually cultivated with well irrigation; but sometimes the land is irrigated beforehand with canal water, and the crop is then grown on its inherent moisture. This class of irrigation in Sind is known as "bosi," or to use the technical survey term, "artificial inundation." Seed is sown either along the side of raised earthen ridges in "chungyun," *i.e.*, pinches, what the top of the thumb or two first fingers will hold, *viz.*, five or six seeds, or it is sown broadcast. The latter method is, however, confined entirely to the land artificially inundated. In well cultivation the ridges are always used. The land is highly manured, goats' dung being the best kind. It is ploughed four or generally five times, and then rolled with a heavy log of wood called a "sahar" until the earth is quite soft, a quality which is indispensable for the crop. The seed is sown in the late autumn, and even as late as the beginning of January, and the crop is reaped in April or May. The extent of cultivation on a well ranges from seven to ten jaribs, but the area, when the land has been artificially inundated, may be more. All the male plants are rooted up and thrown away as useless. When the crop is ripening the upper portions of the stalks to the length of 1 to 1½ feet are cut off, and these are kept separately, and are the tit-bits of it. They are dried with the seed and stalk in them, and these pieces are called ghundyun, and are said to be more intoxicating than the rest of the plant, which, after being cut, is dried in the sun for several days, and is then threshed with sticks until the broken leaves and seed are separated and form the common bhang, as it is sold to the farmer, who, however, cleans it carefully by sifting, and sometimes separates the seeds before retailing it to his customers. Small portions of the ghundyun which break off occasionally are also preserved separately, and are called dodo or dodi. I am sending a box containing specimens of the ghundyun, dodo, and the seed. The actual sowing of the seed, the ploughing, weeding, and bird-scaring, etc., is always carried out by banias or Hindu cultivators, the Muhammadan cultivator supplying the bullocks which work the well and the zamindar giving the land. The bania supplies the seed, but the manure is given in the same proportion as the produce is divided, *i.e.*, one-fifth to the bania and two-fifths each to the raiyat and the landholder. The zamindar also gives takavi or an advance in cash to the raiyat. The amount of seed sown varies according as the cultivation is on well or artificially inundated land, the quantity used in the former being naturally less. One cultivator said that he used on his well three seers a jarib or about six per acre, whereas the second said that one seer was enough when the seed was sown in ridges, and from two to three if sown broadcast. The produce is estimated at from 10 to 20 maunds per jarib.

10. The persons who cultivate hemp do not form a special class.

14. Ganja and charas are imported; the former from Amritsar, where it is said to have been previously imported from Yarkand, Khorasan, and Thibet. The latter drug comes from Kutch. Bhang is prepared in the district, and as the average area cultivated is 164 acres, the quantity prepared may be roughly set down as 5,000 maunds. Bhang is not prepared by the people in their houses. It can be prepared from the hemp plant wherever grown.

15. I have described the method of preparing bhang in paragraph 8 of the last chapter. The bhang, ghundyun, and seed are sold to consumers exactly in the condition in which I have despatched them. They were supplied me by the farmer for the district. Bhang in Sind is used only for drinking, while charas and ganja are smoked. Bhang is manufactured in the field; but, as before stated, the licensed farmer subsequently cleans it.

17. The ordinary Hindu and Muhammadan cultivators prepare the bhang, not any special class of people.

18. Bhang can be kept several years without deterioration unless attacked by insects or wetted by rain. After three or four years, however, it is said to lose its intoxicating effect.

19. Ganja and charas are used only in smoking.

20. Sindhis as a rule do not smoke ganja and charas; but fakirs, jogis, and travellers from other parts, specially the north of India, use charas and very rarely (as the statistics show) ganja. The places of its consumption are the fakirs' and travellers' halting and resting places.

21. I enclose samples of the kinds used.

23. Practically bhang is never used for smoking, but it is said that excessive consumers will rub the fresh leaves of the male plant in their hands and place it in their pipes with their tobacco.

24. All classes of the people drink bhang, the proportion among the Hindus being, however, larger than among the Muhammadans. The late Rai Bahadur Diwan Navalrai whose wide acquaintance with the customs of the people renders his opinion a very valuable one, said that 80 per cent. of the former and 60 per cent. of the latter drink it; but another experienced officer fixes the proportion at 60 and 20.

It is used everywhere for smoking, but scarcely ever for eating, although a few people are said to cook it with their vegetables.

25. The figures of retail sales for the district given below, *viz.* :—

	Mds.	Srs.
1888-89	3,065	39
1889-90	3,041	7
1890-91	2,691	19
1891-92	2,779	23
1892-93	2,902	32

tend to show that the use of bhang is not on the increase. Taking the average sales to be 3,000 maunds, the consumption is 10½ tolas per head of population. There is no reason to suppose that the consumption of ganja and charas is increasing.

26. The consumers may be divided as follows :—

(1) Habitual moderate	70
(2) Habitual excessive	20
(3) Occasional moderate	7
(4) Occasional excessive	3
Total	100

This was the estimate of Mr. Navalrai, and strikes me as a good one. The great majority of bhang drinkers drink it in moderation, just as an ordinary Englishman drinks his beer.

27. The moderate bhang drinkers belong to all classes, and the excessive drinkers are for the

most part fakirs, beggars, scavengers, and men of low caste. A few well-to-do people also drink to excess; but such instances are rare. Idleness is the chief cause which leads to drinking.

28. Habitual moderate consumers of bhang are said to consume a quarter of a tola daily on an average, and excessive consumers 10 tolas, the respective prices being one pie and two annas. It is said, however, that as much as a seer has been consumed by an habitual drinker in the day, and an instance has been reported to me of a man who, having drunk bhang habitually for ten years, took three-fourths of a seer of ghundyun mixed with sugar and spices, and having smoked charas also from his pipe, collapsed and lost the use of one eye. He is now to be seen in the city of Shikarpur a complete wreck.

29. Habitual moderate consumers mix as a rule nothing with the bhang, but drink it in a large quantity of water, when it is known as "pango" or "sukho." The preparation is about 3 tolas to a gallon. They also drink it mixed with spices of all kinds, when it is known as "thadal," *i.e.*, a cooling drink, the spices used being aniseed, pepper, almonds, sugar-candy, saffron, cardamoms, poppy seed, coriander, petals of the holly hock, succory, purslain, etc. Excessive consumers drink it as a rule with water only, but parched grain is sometimes added in order to intensify the intoxicating power. Sometimes before being mixed with water, the bhang is placed under the hot ashes of a fire, as this also is said to increase its strength. Ordinarily bhang is pounded up with a short stick which answers to a pestle, and then put in the water, the mixture being strained through a cloth. The spiced mixture is specially used at festivals, such as the Holi or Shivaratri. Dhatura is not used with bhang, nor do I know of the preparation "bhang massala." Tobacco only is mixed with charas and ganja.

30. Bhang is generally drunk in company, and especially at social meetings, those who drink it in solitude usually doing so in order to escape the notice of their relatives or others who disapprove of the habit. Women never drink it until they are growing old; nor do children as rule. Young men acquire the habit, but as a rule the consumption increases with age.

31. The habit of drinking bhang is easily acquired, and relinquished with difficulty if once it is used to excess. Probably bad company is the leading cause why people become excessive drinkers. The second landholder whom I questioned is himself a consumer, but said, and I believe truly, that he used to drink it to excess; but, finding how injurious it was, had for some time drunk it in moderation only, and once a day instead of twice, *i.e.*, at evening, in the proportion of about 2 tolas to a pint. He used the expression regarding his former excessive drinking that he could not stand it, as he lost his head, and it led to his being cheated by the banias, so he had reduced his quantity to half an anna, *i.e.*, 2½ tolas per diem.

32. On certain Hindu festivals, such as the Holi, Shivaratri, Chetichand, and Vaisakhi, a large quantity of bhang is prepared, especially in the temples, and offered to all comers as a part of the religious ceremonies. If any one is unwilling to drink, he puts a drop on his tongue in token of acceptance. The bhang so used is very weak, and the custom is one which is not likely to lead to the habit of drinking. This was Mr. Navalrai's view, and he adds: "I have drunk it myself several times and found it very refreshing:" yet he was the leader in Sind of a crusade against all forms of drinking of intoxicants. Hindu goldsmiths, and possibly other mechanics, regard the drinking of bhang on Tuesday as essential on religious grounds, and call the drink "Shiva jo sukho" *i.e.*, "Shiva's sukho." This, no doubt, is due to the fact that bhang is looked upon by the followers of Shiva as sacred, because their god is reputed to have been very fond of it, and drunk large quantities of it. The Muhammadans on Friday (which answers to our Sunday) consume more of it on that day, as it is their weekly holiday.

33. I am convinced that the excessive drinking of bhang is universally regarded as disreputable even by the very men who have become habitual drinkers. A common term in discrediting a man is to say that he is a "bhangi;" *i.e.*, one who drinks to excess, and even the drinking of pango is liable to be cast in a man's teeth. Thus people who habitually drink pango will without hesitation deny that they do so if I ask them, but this is no doubt partly due to their imagining that the sahib will look upon them less favourably, and not distinguish between their moderate and the bhangi's excessive use of the drug. Still I myself believe that all respectable natives, Hindus and Muhammadans, in their hearts look upon bhang, as they do upon opium and liquor, as bad. Charas and ganja are in disrepute with Sindhis, who consider that they produce asthma and impotence.

34. The moderate consumer would, no doubt soon take to other cooling drinks if the use of bhang was interdicted, but I do not think that it would be a serious privation to him. To the excessive drinker the privation would undoubtedly be great, and might also lead to his taking more injurious intoxicants, *i.e.*, preparations of dhatura, aconite, opium, country liquor, etc.

35. As long as bhang could be procured elsewhere, it would inevitably be smuggled if prohibited here, and the same remark applies to the other drugs in so far as they are consumed in Sind. Its prohibition could be enforced by legislation only. Discontent would undoubtedly be caused by it, but I do not think that in Sind such discontent would amount to a political danger. I certainly think, however, that other intoxicants would be substituted, *viz.*, liquor by the rich and other deleterious drugs by the poor. Charas, being prepared in Afghanistan and other parts of Central Asia, could always be smuggled into India.

36. There is no reason whatever to suppose that alcohol is taking the place of the hemp drugs.

40. Bhang is used by native doctors in the treatment of many complaints. Thus in a diluted form it is used to cure costiveness of the bowels, and also in cases of temporary stricture, dysentery, coughs, colds, and venereal diseases. For external application it is said to be mixed with butter and applied to boils, piles, ear-ache, and sore-throats. In cases of asthma the stalks are broken up with the flower of the dhatura and smoked. It is also used as an aphrodisiac. The ashes of burnt charas are said to be used for sciatica and worms.

41. Bhang used in moderation is beneficial—

(1) as a digestive;

(2) as a sedative in cases of pains;

(3) as a cooling drink in the hot weather.

Here again I quote Mr. Navalrai, as his opinion is, I think, extremely valuable owing to his hav-

ing been a man of very unusual ability and soundness of judgment as well as the leader in Sind of a crusade against intoxicants of all kinds. I spoke to him on the subject when he was collecting information for me, and found that he was strongly of opinion that bhang drunk as a mild refreshment was beneficial, while he was opposed to the use of opium or alcohol in any form except as a medicine. Bhang is used for the above purposes by all classes of the people.

42. Mr. Navalrai's reply to question 42 is—

"I have associated with persons who are moderate habitual consumers, and have never found the drug to do them any harm. They feel no more than a pleasant sensation with more or less forgetfulness of wordly cares."

I need scarcely say that Mr. Navalrai was not an habitual consumer, but he had, as before stated, on rare occasions drunk the mixture known as thadal. I certainly think that bhang as ordinarily drunk in Sind is harmless, and that to deprive the people of it would be exactly the same thing as to deprive the ordinary Englishman of his beer or the Devonshire labourer of his cider.

43. Moderate consumers of bhang are perfectly inoffensive in every way.

44. Undoubtedly its moderate use tends to allay hunger, although it is said to stimulate the appetite greatly, and it is very refreshing. It is not intoxicating, and the effect is only temporary. If habitually drunk even in moderation, its want would be felt.

45. The habitual moderate use of bhang has in the opinion of all consulted no bad effect whatever, at any rate until old age approaches. Then some people think that the constitution becomes enervated and weakened by it, but the popular idea is that even then a plentiful use of ghi and sugar will counteract all bad effects.

46. Used in excess, bhang causes all the bad effects mentioned in the question; but insanity produced by it would appear to be generally temporary. Its principal effect is to render the consumer thoroughly inert both in mind and body.

47. The habitual moderate use of hemp has no tendency to become hereditary or to affect in any way the children. The landholder referred to in paragraph 31 said he had warned his sons against its use lest they should be bitten by the same snake as their father was, and that neither of them drank it.

48. Nor do I think that excessive bhang drinking is an hereditary habit; but it would no doubt injuriously affect the children in proportion as the parents' health was impaired by its use.

49. It is not used in moderation as an aphrodisiac.

50. But it is used in excess for the above purpose by people of all kinds and prostitutes and it tends to enfeeble the system, even if it does not directly produce impotency, as the excessive use of charas and ganja are said to.

51. Moderate consumption is not connected with crime in any way.

52. Nor do I think that excessive consumption is, because the most characteristic feature in the effect produced by the drinking of bhang to excess is extreme timidity, which would rather prevent the consumer from committing any crime. Thus a man under the influence of bhang will be terror-stricken if he even sees a policeman, and fancy that he has come to arrest him or beat him; and again he will be frightened if he sees the bania to whom he owes money, and will readily sign any foolish document which the latter asks him to. These examples were given to me by the bhangi landholder above referred to, but they illustrate very well the undoubted effect of an excessive use of hemp, and which as a rule makes a man quiet, timid and inert.

53. It is said, however, to lead sometimes to temporary passion, and in the case of a sepoy who some years ago ran amuck at Hyderabad it was attributed to an excessive consumption of bhang. The evidence on this point is, however, discrepant, many people saying that bhang never leads to violence.

54. I have never heard of bhang being used to fortify criminals in order to enable them to commit crime.

55. A species of sweetmeat called "majun" is prepared in Sind from bhang by boiling it with ghi and water, the scum being carefully removed during the boiling. Sugar is then added and spices, musli, shokakal, and galib khalu, of which I do not know the botanical names, bahman (*Centaurea behen*), dalchini (cinnamon), wodaf (aniseed), kaisar (saffron), phota (cardamoms), jafar (nutmeg), jauntri (mace), and utangar (*Acanthodium hirtune*). This sweetmeat is very popular, and realizes about double the price of bhang. It is used in Sind by criminals in order to further their designs, as it is pleasant to the taste and produces stupefaction. I myself have had several cases before me as a Magistrate in which majun had been so used. Dhatura is sometimes mixed with bhang, sugar, and spices for the same purpose. Bhang by itself is not so used, neither are charas and ganja. In 1891 a case of unnatural crime was committed to the Sessions at Shikarpur, in which the victim, a boy of 14, was said to have been drugged with sweetened bhang in which dhatura had been mixed, but the case was acquitted. Practically complete stupefaction does not follow the drinking of plain bhang.

56. Bhang drunk either in moderation or excess is said to become more intoxicating when parched gram or til (sesamum) is added. Dhatura is used for crime only. In December 1888 a man was convicted under section 37, Bombay Act VII of 1867, of being drunk and incapable from the effects of dhatura and charas mixed.

57. Ganja and charas are not eaten or drunk in Sind. The intoxicating qualities of the hemp plant are very remarkable. Thus it is stated to be an actual fact that persons passing by the crop when nearly ripe often feel their heads spin and indeed ache from its influence. Birds who, like squirrels, hares and rats, eat the seed greedily become so intoxicated by it that they can be caught by the hand, and I have seen a man who said he had himself caught them in that state more than once.

58. I am well acquainted with the excise system in force as regards hemp drugs, and I think that it works fairly well, but needs more than one radical change.

59. At present the price of bhang and of charas and ganja too is entirely unrestricted, and it is left to the licensed farmer's will to raise or lower it at his pleasure. If, therefore, at the auction a man bids excessively, the farmer can reimburse himself by raising the price, provided, of course, that such price is not actually prohibitive. The consequence is that the bhang farmer buys at Rs. 2½ to Rs. 4½ per maund (the landholder before mentioned actually sold his crop last year at

Rs. 3-15-0) from the cultivator, and sells at Rs. 50 to 60 per maund. This seems a very loose system, and one which must often result in the farmers reaping an excessive rate of profit, especially as combinations at the auction sales to prevent competition are still not uncommon, and used to be frequent.

62. The quantity of cultivation is now sufficiently controlled, not by its price, but by the fact that if the cultivation exceeds the farmer's demand, the produce is unsaleable. I myself remember very well a year when some bhang which was forfeited to Government in default of payment of rent was absolutely unsaleable because the farmer had got all he required. The farmer gives the cultivator what he pleases, and just enough to induce the men who ordinarily cultivate it to supply the quantity he wants. There is consequently little fear of any excess in the area of cultivation. Even now a cultivator requires a license to possess and manufacture his bhang, and can only sell it wholesale to the licensed farmer. The simplest method of control would be a Government monopoly as of opium.

63. With the above exceptions, I do not object to the present system of vend.

64. Nor do I object to the regulations governing the export, import and transport of the drugs.

65. I think that the amount of taxation should be fixed by Government, and not left as it is at present in the farmer's hands, the taxation being the prices realised at auction. In the case of opium and country liquor Government first levy a duty, and this should be done for bhang in such a way, however, as not to lower its present price. The statistics previously sent demonstrate what is well known to be a fact that the price of bhang has been raised immensely in the last twenty years by the farmers. Thus five tolas used to be purchased for three pies, whereas only one is now obtainable. Yet the average area cultivated in the five years ending 1877-78 was 164 acres, and in the last five years 165 acres, *i.e.*, only one acre more, while the revenue per head of taxation has risen from 5 annas to 1 rupee.

67. Whether ganja and charas pay any Government duty in the Punjab or elsewhere I do not know. But their price also should, I think, be fixed by Government, and a duty levied on them, if not already done.

68. There are no houses or shops where hemp drugs can be sold and consumed on the premises, and I certainly do not want to see such opened.

69. A retail shop for the sale of the drugs is only opened when there is a *bonâ fide* demand, although no regular system of local option exists. The matter must, I think, rest with the Revenue Officers to decide, because any rule that a shop should only be opened when a certain percentage of the inhabitants signed an application for it would not be of much value, signatures being obtainable for very little even when the bribe is one of words only. Revenue Officers should, however, be very careful not to sanction any new shop until clear proof of substantial demand has been given.

70. There is no reason to think that bhang is much smuggled into this district. Bahawalpur indents on us for its supply; Khairpur grows its own; but as it is sold there at a much cheaper rate, petty acts of smuggling may be carried on. There is no tax on importation.

---

3. *Evidence of* Mr. C. E. S. Stafford Steele, *Officiating Deputy Commissioner, Thar and Parkar District.*

2. Yes. Bhang, ganja, and charas.

3. A plant resembling the hemp plant is said to be found growing wild in the hills along the Khirta range and on the western border of Sind; it is called "Igoi." It operates quicker, and its effects are more pronounced than in the case of bhang.

4. The ordinary hemp plant does not grow spontaneously.

5. Unknown.

6. Scattered.

7. Practically none in this district; not an acre in all.

8. *Vide* above.

9. Grown both as a *kharif* and *rabi* crop. Further particulars not known.

10. Not a special class.

11 and 12. No information available.

13. *Vide* query 7.

14. The plant, as already stated, is not grown in this district.

18. Bhang deteriorates after twelve months, and becomes worthless after two years. Ganja the same. Charas is said to improve by keeping, but it has to be kept so that the air may be excluded, and even so it will not retain its properties after five years.

19. Only for smoking.

20. The inferior orders and ascetics, both Hindus and Muhammadans, mendicants and fakirs.

21. Flat preferred.

22. Foreign. Imported directly from the Punjab; principally from Amritsar. It is said to come from Yarkand.

23. Those addicted to ganja and deprived of the drug at times mix bhang with tobacco; but this is said to be infrequent, the result being unsatisfactory.

24. The sweetmeat majum is eaten by the higher classes, but it is not met with in this district.

25. Increased, but with the population and not in consequence of greater consumption by individuals, except in the case of charas, the imports of which have increased during the past two years.

26.

	Bhang.	Charas.	Ganja.
(*a*)	40 per cent.	60 per cent.	70 per cent.
(*b*)	40 „	40 „	30 „
(*c*)	20 „		
(*d*)			

Those persons who take charas and ganja become habitual consumers, for the habit is said to grow upon one.

27. (*a*) *Bhang.*—As regards bhang, moderate

consumers are to be found in all classes and among both sexes.

(*a*) *Charas.*—Beggars and ascetics.

(*a*) *Ganja.*—Beggars and ascetics.

(*b*) *Bhang.*—Beggars and ascetics, and at times sayads and pirs and others of the upper classes.

(*b*) *Charas and ganja.*—As under (*a*).

(2) *Bhang.*—Use is induced by the excessive heat of the climate, and taken in moderation, it is said to be cooling.

Charas and ganja are taken very often in the first instance moderately with a view to increasing the sexual powers. Excess follows with the result that loss of power ensues, and the constitution becomes enfeebled.

28. (*a*) Bhang . . 1½ tolas = 3 pies.
Charas . . ⅛ tola = 6 „
Ganja . . ⅛ „ = 3 „
(*b*) Bhang . . 5 tolas = 1 anna.
Charas . . ¼ tola = 1 „
Ganja . . ¼ „ = 6 pies.

29. (*a*) *Bhang.*—Black pepper and cardamoms, bhang only being conducive of flatulency.

(*b*) Pounded almonds, sugar, and poppy-head seeds.

Charas and ganja.—Tobacco is only mixed with these.

Dhatura is not mixed.

30. These drugs are consumed in solitude and in company, and to a greater extent in company. The consumption is mainly confined to the male sex. Respectable women, however, take bhang in moderate quantities, chiefly when pregnant, as a narcotic. These drugs are not administered to children.

31. The habit is easily acquired, and the habit of taking ganja and charas is comparatively difficult to break off. The moderate use generally leads to excess in the case of the two drugs named.

32. None in this district.

33. The consumption of ganja and charas is regarded as a vicious habit, as these narcotics impair the constitution. Not here.

34. In the case of bhang none to speak of, unless the drug has been taken to excess, when its deprivation is said to prevent the retention of urine by causing irritation in the bladder.

In the case of ganja and charas the deprivation would be felt for a few days, and relief sought by imbibing bhang.

35. Ganja and charas might easily be prohibited, as the drugs are imported, and they are looked upon with disfavour by the better classes.

The prohibition to bhang would give rise to considerable discontent among all classes, for it is looked upon as the poor man's narcotic, and furthermore because it is also considered to possess valuable medicinal properties. If prohibited, the consumption of opium would be stimulated thereby.

36. There is no evidence in support of such a theory.

37. Charas is said to induce immediate intoxication, and there is a Sindi saying in support of this. The action of ganja is slower, and, in order to accelerate its effect, tobacco is often smoked immediately after the drug has been taken.

38. Only the flat is supplied in this district.

39. Bhang is taken in a liquid form, and ganja and charas are smoked. The drugs are not taken in any other way.

40. By native physicians the properties of bhang are termed "cold and dry," *i.e.*, stimulative and sedative. A snuff is prepared from the leaves. Bhang is also used as a "hair wash." It is prescribed for diarrhœa and gonorrhœa and as a diuretic. Prepared as a plaster, it is used as a cooling application for piles and to reduce inflammation, and also for neuralgia.

It is administered to mares shortly before they are covered.

41. Only bhang, which is used.—

(*a*) as a digestive;

(*b*) to alleviate fatigue;

(*c*) to induce perspiration in ague fits, when dry leaves are placed on embers and the smoke inhaled.

(*d*) *Vide* paragraph 40 above.

42. Bhang in moderation is popularly regarded to be harmless, and I see no reason to dispute this.

43. Yes; but the sensitive "feelings" of habitual consumers appear to be easily aroused, and such persons give way to inordinate merriment or to sudden anger at small provocation. In support of this view, there is the Sindi adage "Never meddle with a bhangi."

44. Bhang if taken of moderate strength is refreshing. Intoxication can be induced by increasing the strength of the beverage. It does not allay hunger, but thirst. It is appetising. The period for which the immediate effects last varies. The after-effects are said to be lowering, and consumers become hypochondriac. The want of subsequent gratification is felt more intensely in the case of bhang.

Ganja produces exhilaration. The effect is said to last somewhat less than an hour. It is said to produce warmth in the system, and for that reason is said to be frequently taken by persons when starting on a journey at night. A state of inertia follows the want of it.

Charas is more rapid in its action than ganja, and vertigo frequently follows. It is said that in the case of these two drugs the habit can be easily broken off, whereas such is not the case as regards bhang.

45. The moderate use of bhang is not considered to be injurious; otherwise it is said to enfeeble the constitution and to bring on mental anxiety and extreme nervousness. Persons addicted to it are more susceptible to fatigue than others. It does not injure the digestion or cause loss of appetite, nor bring on bronchitis or asthma. In cases of dysentery it is mixed with curds and given as a remedy. Its use is conducive to laziness; neither immorality nor debauchery is laid to its charge. Mental vigour becomes weakened by the excessive use of the drug, but insanity is said not to ensue.

Ganja and charas, it is admitted on all sides, produce most baneful effects. There is a saying in Sindi, "Charas be taras"—*i.e.*, charas is ruthless." These drugs weaken the physique, causing wasting of the body. Vision becomes impaired and the lungs affected; the intellect becomes deadened, and, while in the first instance they operate to incite debauchery, they end by rendering those addicted to their use impotent. Insanity is acknowledged to follow their excessive use.

47. No.

49. The lower classes of prostitutes are addicted to bhang.

Ganja and charas are supposed to act at first as an aphrodisiac, but their continued use is said to inevitably cause impotence.

50. *Vide* above.

51. Such has not proved to be the case in this district.

None so far as can be locally ascertained.

52. Persons claiming to be addicted to ganja and charas have been known to plead irresponsibility for their actions.

53. It appears that those who indulge in bhang are easily provoked and become excessively irritable, and that insanity results from the immoderate use of ganja and charas. Serious crimes are most undoubtedly committed by persons addicted to these drugs, and are mostly ascribed either to provocation or frenzy.

54. These drugs are not taken by those unaccustomed to their use with a view to fortify themselves in the commission of premeditated crimes. Criminals addicted to ganja and charas are believed to gather Dutch courage by fortifying themselves with a smoke prior to starting on their nefarious expeditions.

55. No such case has been heard of here.

56. Sugar, poppy-head seeds, til, *i.e.*, gingelly, and parched gram are mixed with bhang, and are supposed to enhance its intoxicating properties. The baking of the leaves prior to their being pounded up is believed to increase the effects of the drug.

Pickles, sour fruit and ghee are the antidotes resorted to in case of prolonged intoxication.

57. They are only smoked here.

58 and 59. The system appears to work well, but, in view of the baneful effects produced by ganja and charas, I am disposed to recommend that their sale should be restricted to a greater extent than is now done. In terms of the present form of license, a retail vendor is permitted to sell 40 tolas or half a seer of these drugs to any one person on any one day; he is also permitted to sell the same amount of bhang, which is a much cheaper commodity. I think in the case of ganja and charas the maximum vend might well be fixed at 10 tolas.

60. Not produced in this district.

61. Not produced.

62. It is already sufficiently controlled.

63. *Vide* answer to paragraphs 58 and 59.

64. No.

68. No.

69. Merely in so far that shops are only opened where required. None seem called for. Unnecessary.

---

4. *Evidence of* KHAN BAHADUR KADIRDAD KHAN GUL KHAN, C.I.E., *Deputy Collector, Naushahro Sub-division.*

1. I have served in all the districts of the province for a little more than thirty-four years, and have had to deal with those who sell and consume hemp.

2. The drugs which are consumed and sold in Sind are the three, *viz.*, bhang (hemp), charas and ganja.

Hemp is locally produced, but charas and ganja are imported from Yarkand and Panveli of Thana district, respectively. They are not manufactured from hemp plant in this province.

Ganja imported into this country is of the flattened shape, *i.e.*, the flat ganja.

So the definitions given by Dr. Prain may be accepted.

In this province hemp is known by the name of bhang, and charas and ganja by their original names.

3. In no district of this province does the hemp plant grow spontaneously.

7. Hemp is cultivated in this province only for use as bhang and for its seed, but for no other purposes.

8. There is a gradual increase in the cultivation of bhang owing to the increase in population, but the increase is not very great.

9. I have served in Sehwan taluka, zillah Karachi, for about seven years, where in one of its villages, called Bubak, hemp is grown considerably and brought to perfection. In order to raise a good crop of hemp, it is necessary that the land should be well ploughed and manured and copiously watered. The seed is sown about October or November and the crop is reaped about April. The crop is then allowed to dry in the sun and then removed to warehouses or godowns.

10. Persons of the same classes as other agricultural cultivators grow the hemp. They form no special class; but as a rule a Hindu agriculturist takes more pains with the crop than a Muhammadan does.

11. I do not know anything about this.

12. I cannot answer this.

13. As ganja is not manufactured from hemp in this province, I cannot answer this question satisfactorily. I can only add this much, that as hemp is raised to its perfection in this province, there is no reason why ganja could not be made out of it locally, if the cultivators knew how to manufacture it.

14. Ganja and charas are not prepared in Sind; but only bhang is used.

Bhang is the leaf of the hemp plant and generally the seeds are mixed with it. In this state it is pounded in a mortar, made into liquid, and drunk. Bhang is not imported from any other province or native territory; but whatever is raised in the province is sufficient to supply the demand of consumers.

Very little of it is grown in this district. The area brought under hemp cultivation during the last three years is as follows :—

	A.	G.
1890-91	17	6
1891-92	20	26
1892-93	2	29

But the demands of the district are supplied by importation of bhang from Karachi district, chiefly Bubak of Sehwan taluka.

15. I cannot give the method of the preparation of charas and ganja, as they are not manufactured in Sind. But as far as the habits of the people are concerned, charas and ganja are smoked, bhang is drunk in a liquid state, and a preparation of the bhang, called majum, is eaten. The way in which majum is prepared is as follows:—Bhang is pounded in a mortar, water is added to it and its juice is extracted by pressing it. This is again boiled and in the process of boiling sugar-candy and cardamom are put in it. This, after it is cooled, is eaten by well-to-do persons in small quantities at bed-time and also early in the morning, but the use of majum is confined to only few and rich people.

16. Bhang is generally prepared by people in their houses or *tikanas* and *dayeras*, which resemble the alehouses of Europe. It can be prepared from the hemp plant wherever grown, but charas and ganja require special process for its manufacture.

17. Needs no answer.

18. Of course charas, ganja as well as bhang deteriorate by keeping. Bhang and ganja quite lose their effect after four years; but charas can keep up its effect for a longer time and after six or eight years it becomes useless. Lapse of time and effects of climate are the causes of deterioration. No special measures can be suggested to prevent the deterioration of these drugs.

19. As far as Sind is concerned, ganja and charas are used only for smoking. They are used in no other way.

20. Ganja and charas are smoked in this province chiefly by fakirs who come from other parts of India and also by those local residents who associate with such fakirs. There are more ganja smokers than charas smokers. The proportion of ganja smokers is one per cent., and that of charas smokers about one per 200 of the population. In mufassal ganja and charas are used very little and by exceptionally very few people; but in large cities and towns which the foreigners resort to, the proportion of smokers is large.

21. Only the flat ganja is imported into Sind for consumption.

22. Only foreign charas is used. It is imported to this country from Yarkand *via* Amritsar.

23. In very rare instances those who are addicted to ganja smoking do smoke bhang leaves as a substitute for ganja when they cannot obtain the latter; but this habit is confined to hard smokers of ganja and it is not of general practice.

24. The drinking of bhang is not confined to any particular class or creed of people. Both Hindus and Muhammadans drink and eat it. Bhang is eaten in the shape of majum only in large cities and towns by very few people who are rich; but its drinking is extended over large cities and towns as well as the mufassal with this exception that whereas in large cities and towns the proportion of drinkers may safely be estimated at 25 per cent., while in the mufassal it is only 5 per cent.

25. The use of ganja, charas and bhang, specially of the latter, is on the increase.

Ganja and charas, when smoked, produce a heating effect and the climate of Sind is hot. Therefore these two drugs are consumed in a limited quantity.

The drinking of bhang has cooling effects and in a hot country like Sind it is, to those who use it, an agreeable beverage. The reason of the increase in the consumption and use of bhang may be attributed to the change in the habits of the people with the march of civilization, when every young man has begun to think that he can do what he likes and may eat and drink whatever he pleases without any check as long as he does not break the law.

To prove that charas and ganja are consumed to a very small extent as compared with bhang, I give the figures of consumption for the year 1891-92 for the Hyderabad district:—

	Maunds.	Seers.	Tolas.
(1) Bhang . .	1,120	15	39
(2) Charas . .	14	10	67
(3) Ganja . .	39	36	69

26. The number of habitual as well as occasional excessive consumers of ganja and charas is very small, and the number of occasional moderate consumers is also very small. They should not be taken into consideration. But the number of habitual moderate consumers of charas and ganja may be reckoned at 5 per mille in large cities and towns and 1 per mille in the mufassal.

In the case of bhang drinking the proportion may be taken as follows:—

	In large cities and towns. Per cent.	In mufassal. Per cent.
(1) Habitual moderate consumers	20	3
(2) Habitual excessive ditto	2	·5
(3) Occasional moderate ditto	1	·5
(4) Ditto excessive ditto	2	1

27. Charas and ganja are smoked by people of very low class and inferior habits, but bhang is taken by all classes, beginning with princes, nobles, merchants, spiritual leaders, ending with the poorest labourer and the beggar. The habit of using bhang is acquired by associating with bhang drinkers.

28. The daily average cost of these drugs per diem may be estimated as follows:—

	Habitual moderate consumers.	Habitual excessive consumers.
(1) Bhang	One pie per head.	Six pies per head.
(2) Charas	Six pies ,,	Two annas ,,
(3) Ganja	Three pies ,,	One anna ,,

29. As a rule ordinarily no ingredients are mixed by any of the classes who use bhang, charas and ganja. In exceptional cases, dhatura is mixed with bhang in order to stupefy the person by whom it is intended to be used; but this is done in very rare instances among the Muhammadans of the lowest class. Among the Hindus the admixture of dhatura with bhang is not known.

There is no such thing as bhang massala known or used in Sind.

30. Those who use the drugs take it in solitude as well as in company, but naturally a man takes a little more in company than what he does in solitude.

Children never smoke charas or ganja; but women of very low caste, such as prostitutes, do smoke it. Bhang is used by females generally after they attain the age of thirty or forty years, but the proportion of female drinkers as compared with male drinkers is very small, say one woman after every five men.

31. The habit of consuming any of these drugs can be easily formed, and it is difficult to break off. There is not much tendency in the case of any of these drugs for the moderate habit to develop into the excessive; but it must be remembered that those who are excessive smokers or

drinkers had begun by moderate smoking or drinking.

32. In the case of charas and ganja it is not obligatory by any religious or social custom to smoke the stuff on any particular occasion; but in the case of bhang among the Hindus during the Holi holidays it is a part of the religious ceremony to take a little of "panjtulo" (five ingredients) when attending the tikana (a place of worship). This panjtulo is composed of bhang, sugar, cardamom, dry leaves of roses and succory (or kasni); but there is no religious or social obligation on the Muhammadans to take the drink on any particular day. On the occasion of religious holidays such as Mohurrum those who do not drink it have no objection to take a little of it if offered; but this drinking is generally temperate and is not likely to lead to the formation of the habit, nor is it otherwise injurious.

33. As far as public opinion of this country is concerned, the smoking of charas and ganja is considered as not a respectable habit, and the moderate drinking of bhang is not regarded as disreputable. On the contrary, there are certain verses in Persian, Sindhi and Urdu, praising the drug.

The hemp plant or its leaves or seeds are never worshipped on any occasion by Muhammadans.

In the Sindhi months of Asu and Chet, when Hindu males and females observe fasting (called Ekana), the section of the Hindus who are the followers of Devi worship hemp in liquid before it is drunk.

34. Certainly it would be a serious privation to charas, ganja and hemp consumers to forego the consumption of these drugs, as it would be in the case of a European labourer if he is prohibited from his glass of beer. Once a man gets into the habit of taking certain intoxicating or narcotic drug, he feels the want of it even if he were a moderate consumer. It is very difficult to give the probable number of each class of consumers.

35. It would not be feasible to prohibit the use of any or all of these drugs, just in the same way as all governments in Europe would not find it feasible to prohibit the use of wines and beers. If the licit consumption of these drugs were prohibited, people would find ways to use them illicitly. The consumers will be seriously discontented if prohibition were enforced, and the discontent will certainly amount to a political danger, as all classes of people from the most influential spiritual leader to the lowest beggar will say that British Government, while not interfering or prohibiting the use of alcohol in their own country, are stopping them here from the use of less intoxicating drugs which they have been using from time immemorial and which is also religiously respected, and the prohibition will naturally be followed by recourse to alcoholic stimulants and other drugs.

36. From the enquiries that I have made, I learn that alcohol is not substituted for any of these drugs; but if the consumers of hemp drugs find themselves in better circumstances, they begin to use alcohol in addition to hemp drugs.

37. In my opinion the effects of charas smoking are as bad as those of ganja. From a teetotaller's point of view one is as bad as the other.

38. I cannot answer this question, as we have got only one kind of ganja used in Sind.

39. In this province every body will share with me in saying that smoking of any preparation of the hemp drug is more injurious than drinking it or eating the same in the shape of majum, because smoking has more stupefying effects than drinking and eating.

40. The use of charas and ganja is never prescribed by any school of native doctors as a medicine, or as an ingredient in a medicine, but on several occasions the drinking of mild liquid of old hemp is prescribed by native doctors as a medicine in the case of bleeding piles, dysentery and stoppage of urine.

I have not heard that hemp is ever used in the treatment of cattle diseases.

41. The moderate use of charas, ganja or bhang will not prove beneficial in the case of those who have never used it; but those who consume it confess that the moderate use of these drugs makes them in good mood for hard work and exertion, and the use of hemp liquid is considered as a preventive of disease in malarious and unhealthy tracts.

It is difficult to say regarding the classes minutely; but I refer to the moderate habitual use of these drugs.

42. The moderate use of all the three drugs is harmless, because I have never observed the moderate consumer of any of these drugs inferior intellectually or physically to those who do not use them.

43. Moderate consumers are inoffensive to their neighbours. I have exercised magisterial powers for more than 26 years and no cases have come to my notice showing that because a man happens to be a moderate consumer of any of these drugs, he has been offensive to his neighbours.

44. The immediate effect of the moderate use of any of these drugs on the habitual consumer is that he finds himself to be refreshed, and it produces a little intoxication, creates appetite and the effects of intoxication last for a few hours. The habitual moderate consumer feels himself very uneasy if he does not get his smoke or dose at his usual times.

45. The habitual moderate use of any of these drugs is not proved to produce any noxious effects —physical, mental or moral. It does not impair the constitution in any way. It does not injure the digestion or cause loss of appetite. It does not cause dysentery, bronchitis or asthma. It does not impair the moral sense or induce laziness of habits or immorality or debauchery. It does not deaden the intellect or produce insanity. These drugs have been never known to produce insanity if taken moderately.

46. In the case of those who use these drugs habitually in excessive quantities, they are certainly inferior physically, mentally and morally, to their brothers who do not use the drugs or use them moderately. But the habitual excessive use produces permanent insanity only in those cases where the consumer is physically weak and is not well fed and clothed, and, on the other hand, in the case of those who get good food and are well clad, the excessive use of these drugs does not bring on permanent insanity. Beyond this I cannot answer this question.

47. The habitual moderate use of any of these drugs does not become a hereditary habit, and does not affect the children of moderate consumers.

48. In the case of habitual excessive consumers of these drugs, the habit does not become hereditary, and their children are not affected, because in this country, with the exception of prostitutes, no female is an habitual excessive consumer of these drugs, and one of the parents of the child, being free from the habit of the excessive use of the drug, is probably the cause of the children not being affected.

49 and 50. I cannot answer these questions.

51. Large proportion of bad characters in this country are those who do not use any of these drugs. The crime in general or in particular has no connection with the moderate use of these drugs. I give this opinion from my own experience as a Magistrate who have had to deal with bad characters and criminals for more than a quarter of a century.

52. On the other hand, the excessive use of bhang produces cowardice and timidity. An excessive bhang drinker is never violent. He is not expected to commit any daring deed. If he has no funds to purchase his daily bhang, he might resort to pilfering. The excessive smokers of ganja and charas get into fury and violence and in that state do commit the crime of taking the law in their own hands against the persons of other individuals, if provoked.

53. The excessive indulgence in these drugs does not incite to unpremeditated crime or violence. I know of no instance in which the excessive indulgence of these drugs may have led to temporary homicidal frenzy.

54. I answer this in the negative.

55. Complete stupefaction cannot be induced by any of these drugs without some strong admixture, such as dhatura or opium soaked in oil, and the criminals in order to further their designs always mix some other strong intoxicating drug with hemp drugs, when they administer it to their victims.

56. I am not in possession of accurate information to enable me to answer this question correctly.

57. Ganja and charas are not known to be eaten or drunk in Sind. They are only smoked.

58. I am acquainted with the system of excise administration in this province in respect of hemp drugs. I think it is capable of improvement.

59. In my opinion the administration requires the following improvements :—

(*a*) Ganja and charas are not manufactured in this province. They are imported by farmers from Panveli of Thana district in the Bombay presidency and Yarkand respectively. The farmers try to purchase inferior articles as cheaply as they can and an inferior stuff is always injurious. Government ought to purchase charas and ganja and supply them to the farmers in the same way as they do opium; because the use of inferior ganja and charas is more injurious than that of a superior kind.

(*b*) Hemp is cultivated by agriculturists in their fields wherever they like. They have only to obtain permission for cultivating it. The revenue authorities warn them to sell their produce to Government farmers, but owing to the want of sufficient establishment these authorities cannot depute a special officer to see that all the hemp produced by the cultivators is sold and handed over to the Government farmer. This leaves the cultivator at perfect liberty to sell as much of it illicitly to consumers as he likes before the Government farmer comes to buy it from him. The best plan will be that only those who have lands not far away from the taluka head-quarters should be permitted to cultivate hemp plant, and Government should appoint a well-paid and trustworthy official to see that the hemp from the time of its harvest up to the time it is handed over to the Government farmer is not tampered with. Until this is done the illicit consumption of bhang cannot be stopped in the neighbourhood of those fields where it is cultivated.

(*c*) Government sell by public auction the right of retail selling of charas, ganja and bhang. The person whose bid is accepted is called the farmer. There is no condition in the license specifying the rate at which he has to sell these drugs to the consumers by retail sale, and he is to fix his own rates, just as he pleases. Comparing the rates at which he purchases with those at which he sells to the consumers, the difference is very great and most startling. To prove this assertion I give below the figures regarding the Hyderabad Collectorate for one year, *viz.*, 1891-92 :—

In the year 1891-92 the farmer paid ₹29,335 to Government. The quantities of the drugs sold by him are shown below :—

	Maunds.	Seers.	Tolas.
(1) Bhang . . .	1,120	15	39
(2) Charas . . .	14	10	67
(3) Ganja . . .	39	36	69

From the accompanying statement it will be seen that the three drugs, which were consumed during the year, were purchased by the farmer at a total cost of ₹7,097-12-3 and were sold to consumers at ₹83,404-11-9. The difference between the prices at which the farmer bought these drugs and sold them to the public is no less than ₹76,306-15-7. Deducting the sum of ₹29,335 paid to Government, it leaves him ₹46,971-15-7.

No doubt the farmer spends something out of this in the shape of carriage expenses of bringing the drugs to various retail shops and paying commission to agents who sell the drugs by retail in different villages; but this will not amount to more than a few thousand rupees and the margin of profit to the farmer is very great.

In the case of opium in this province Government have made conditions with the farmers that they cannot sell the drug beyond a certain maximum price to the consumers, which is five annas a tola or Rs. 12½ per lb. The duty paid to Government is Rs. 10 per lb. As long as the present system is in vogue, there is a very great danger of the illicit importation of hemp from the adjoining territory of Khairpur.

Bhang, which is purchased by the farmer at Rs. 4 per maund, is sold to consumers by retail at the rate of 3 pies a tola or Rs. 50 per maund, and from the letter of the Political Agent of Khairpur territory it appears that bhang is sold

to consumers in that territory at the rate of Rs. 4 or Rs. 5 per maund, and in times of scarcity at the rate of Rs. 9 or Rs. 10 per maund. It may safely be said that the retail rate prevailing in the Khairpur territory is Rs. 5 per maund, while that in the British territory of the Hyderabad district is Rs. 50 per maund. The difference between the prices in the two adjoining countries is so great that people have strong temptations in their way to illicitly import hemp from the Mir's territory into the Hyderabad district. The Political Agent has further informed me that the retail sellers pay only one rupee per maund to the State.

The Khairpur territory is bordering along the Shikarpur, Hyderabad and Thar and Parkar districts, and as long as this great disparity of rates continues, there is a great danger of illicit importation of the drug. The number of patrols, who have to guard the borders of the Mir's territory for the purpose of suppressing and detecting crimes against the salt and excise laws is far from sufficient.

60. Ganja is not produced and manufactured in this province.

61. Charas is not produced and manufactured in this province.

62, 63 and 64. In answering question 59 I have answered these questions.

65. I would adhere to the present system of selling the right of bhang, charas and ganja by public auction, but would insist on a maximum price for retail sale being fixed by Government, as is done in the case of opium, and I think the present retail rates at which bhang, ganja and charas are sold are very high.

66. I need not answer this question.

67. I have answered this question while answering question 59.

68. There are shops for the retail sale of these drugs; but the drugs are not consumed on the premises.

69. The wishes of the people are consulted before a shop is opened in any locality. The Collector has power to determine how many shops and in what localities are to be opened, and before fixing their number and locality the wishes of the people are consulted through the mukhtiarkars of the talukas. I think that local public opinion should always be considered on this point.

70. While answering question 59, I have pointed out the different rates at which bhang is sold in this district and in the adjoining native territory of Khairpur, and as long as this disparity of rates is not removed, the danger of illicit importation of hemp cannot disappear. Otherwise duty is paid on all these drugs. I may further say that in some instances the excise and salt establishments have succeeded in detecting cases of illicit importation of bhang from the Khairpur territory into this district, and the offenders have been dealt with according to law.

---

5. *Evidence of* S. Sadik Ali Sherali, *Deputy Collector and First Class Magistrate, Frontier District of Upper Sind.*

1. My own personal experience, gathered by the use of hemp in its liquid form on three or four occasions, from personal association with consumers of bhang and charas, from my rational age, and also from inquiries made from persons who drink bhang and smoke charas, from contractors in this district and in Shikarpur, Sukkur and Rohri, from observations made during the time I was on three months' leave from 3rd August to 2nd November 1893, and from inquiries made in Saharanpur district, and also during the course of my service extending over a period of twenty-one years.

2. In Sind bhang is not known by the name of siddhi, but is called by the following names :—(1) bhang, (2) sabzi, (3) sai, (4) ghundiun, (5) bhang kuto or chur. Its other names are given in Appendix A.

Charas is not only the resinous matter, but consists of resinous matter, deposit of dust upon the leaves, and leaves all crushed and compounded in balls or lumps or cakes. For detailed process of manufacturing charas please see Appendix B.

Ganja is rarely smoked in this country; but the definition of it given by Dr. Prain may be accepted. Its process of manufacture, as known in this country, is given in Appendix B.

3. It grows spontaneously in the Saharanpur district, North-Western Provinces. It is known to grow spontaneously, and I have myself seen it grow in my own village Ambahta, also near Rurki and Piran Kaliar in the Saharanpur district.

4. It is known only by the name of bhang. I have not heard it called by any other names.

5. No special conditions are necessary except rainfall. In Sind I have not seen wild hemp grow in places where no rain falls. It is said to grow in the hills in the Karachi district and the Kelat territory.

6. It is scattered, as I have seen it in the Saharanpur district.

7. (*a*) and (*b*) No.

(*c*) and (*d*) Yes.

I have got statistics only for the Thul and Kashmor talukas, of which I hold charge. In the Thul taluka no hemp was cultivated during the past nineteen years; only eight acres of land was cultivated in that taluka in 1873-74. In the Kashmor taluka the following areas were sown in the past twenty years :—

	A.	G.
1873-74	*Nil.*	
1874-75	*Nil.*	
1875-76	0	30
1876-77	0	6
1877-78	0	0
1878-79	0	5
1879-80	0	0
1880-81	0	24
1881-82	0	0
1882-83	0	0
1883-84	0	0
1884-85	0	0
1885-86	1	34
1886-87	0	5
1887-88	0	8
1888-89	0	7
1889-90	0	0
1890-91	0	0
1891-92	0	22
1892-93	0	0

Details of Cultivation of Hemp Drugs (Bhang) in the Jacobabad Taluka.

Year.	Area under cultivation. A.	G.
1873-74	2	22
1874-75	4	0
1875-76	1	4
1876-77	2	24
1877-78	0	1
1878-79	No details available.	
1879-80	0	6
1880-81	0	0

Details not available from 1881-82 to 1883-84, and there was no cultivation in 1884-85 to 1892-93.

Note.—For Shahadadpur taluka no details available, and no hemp was sown in 1883-84 to 1892-93. This taluka was amalgamated with this district in 1883-84; prior to it, it formed part of the Shikarpur district.

8. There being no considerable increase or decrease, no explanation is required.

9. There are two methods for the cultivation of hemp. In the lands subject to the natural flow of river water, land is first flooded, seed is put down broadcast and is then ploughed. The other method is more elaborate and produces good and substantial crop. The land is first ploughed *once* or twice, roller is passed over it, and ridges are prepared in which seed is put down like tobacco or other vegetable crop. When the plants and seed become ripe, they are cut down just above the roots and are allowed to dry intact.

10. No. The persons who cultivate hemp for its narcotic properties belong to the classes of ordinary agricultural cultivators.

11 and 12. Do not know.

13. The hemp plant is not cultivated in this district for the production of ganja, as ganja is rarely used in this district. Do not know.

14. (*a*) and (*b*) No.

(*c*) Yes. For details of this district kindly see paragraph 7. I have no details for other districts in the province of Sind.

15. The methods of the preparation of (*a*) ganja, (*b*) charas, (*c*) bhang, are given in Appendix B. There is no difference in the method of preparation of bhang from the cultivated and the wild plant. I do not believe there can be any difference in the preparations of charas and ganja from the cultivated and the wild plant; but as these two preparations are not manufactured in this country, I am not able to give my opinion. The methods of its preparations for smoking, eating and drinking are given in Appendices A and B.

16. Bhang is generally prepared by the people in their houses. It can be prepared from the hemp plant wherever it is grown, as the process of its preparation is very simple, as given in Appendix B. I do not know whether ganja and charas can be prepared from the wild plant wherever it grows.

17. The preparations of the hemp drug, *viz.*, bhang, charas, and ganja are made either by the persons who cultivate the plant or by the contractors who buy the standing crop. But majums are prepared by native physicians or by those who know the components required for their preparation.

18. Bhang in the form of ghundis, ganja and charas keep good for two or three years if carefully kept within a building secure from weather and exposure to sun and rain; and also from attacks of beetles and other insects. If exposed to sun, weather or rain, or attacked by insects, these drugs, especially bhang and ganja, deteriorate in the course of a year. Bhang chur or *kúto* deteriorates in the course of one year under all circumstances.

19. In the province of Sind, charas is used for smoking only. Ganja is not smoked by natives of Sind; it is smoked by up-country people, specially fakirs, jogis and sadhus.

20. Natives of Sind rarely smoke ganja, and when I made inquiries lately from the farmer of these drugs in Jacobabad and Sukkur they said they had no ganja for sale, as it was not used by Sindhis. In Shikarpur also I could not get even a sample of it.

In the towns of—

Jacobabad, Shikarpur, Sukkur and Rohri . } Charas—Hindu adults 6 per cent.
„ Mussalmans 9 do.

In other outlying villages—

Charas—Hindus 4 per cent.
„ Mussalmans 6 do.

21. Do not know, as ganja is not smoked in this country.

22. Foreign charas is chiefly used, which is imported from Yarkand and Afghanistan to Amritsar and Lahore and from there it is imported into Sind. Charas is also manufactured in the Khairpur State, but its import is prohibited.

23. It is very rarely smoked by the natives of Sind.

24. Bhang is rarely eaten by the natives of Sind; when any one has got no water and its grinding materials, it is eaten to gratify the cravings of habit. In the Frontier and Shikarpur districts all classes drink bhang in the hot season to a large extent as a cooling and refreshing drink, specially the lower classes of people who cannot afford to buy syrups. In the hot season in places like Shikarpur, Sukkur, Rohri, Jacobabad, about 50 per cent. adult Hindus and 15 per cent. adult Mussalmans; in the cold season only habitual consumers drink it, who are 25 per cent. adult Hindus and 10 per cent. adult Mussalmans. Hindus consider bhang to be a holy plant, as it was patronized, some say, by "Shiva" and some say, by "Mahadevi" and call it "Shivaji" or "Mahadaiji" buti. In almost all the tikanas (places of worship) large earthen pots of its thin watery preparations are kept full for the use of the visitors and passers-by in the hot season, and the preparation is called "sukho," and by Mussalmans "Abo," which is drunk even by boys and girls on account of its cooling and refreshing effects. The cost of the bhang is borne from the Panchayat Funds. In the outlying villages in the hot season about 30 per cent. adult Hindus and 10 per cent. adult Mussalmans drink bhang. This decrease is due to difficulties in the way of getting the drug, as shops for its sale are not kept in every village. In the cold season the number of Hindus may be 15 per cent. and of Mussalmans 7 per cent. The difference is due to occasional drinkers in the hot season.

25. The increase and decrease in the use of these drugs is generally fluctuating and is at present stationary on account of high prices at which they are sold. The rates at which charas and bhang are sold are given below:—

(1) Charas—Rs. 10-0-0 per pound of 40 tolas.

(2) Bhang—Rs. 0-10-0 „ „ „ „ „

Ganja is not kept in stock by the farmers. The above prices being prohibitive, the consumption of the two drugs has been restricted to a great extent. It may be noted that farmers buy bhang ordinarily at an average rate of one rupee and eight annas per maund, *i. e.*, $3\frac{3}{5}$ pies per pound. The fluctuations in rates of sale depend upon the price the farmers pay to Government for the monopoly of the farms, and raise or reduce rates according to the amounts they pay.

		Towns and cities.	Outlying villages.
		Per cent.	Per cent.
26. (*a*)	Of bhang—Hindus	20	10
	Mussalmans	6	4
	Of charas—Hindus	3	2
	Mussalmans	5	3
(*b*)	Of bhang—Hindus	5	5
	Mussalmans	4	3
	Of charas—Hindus	2	1
	Mussalmans	3	2
(*c*)	Of bhang—Hindus	22	13
	Mussalmans	3	2
	Of charas—Hindus	1	1
	Mussalmans	1	1
(*d*)	Of bhang—Hindus	3	2
	Mussalmans	2	1
	Of charas—*Nil.*		

The above figures apply to adults only.

27. There are no particular classes of people who use these drugs. Association with habitual consumers or women of bad repute, specially prostitutes, or tendency to enjoy sensations produced by intoxication, or pleasures of sexual intercourse, lead to the practice.

28. 1.—Bhang.

Quantity.	Present rate.
(*a*) One tola including stalks	3 pies.
(*b*) One anna=5 tolas.	1 anna 3 pies.

I have been told by several habitual consumers that there are many habitual consumers who could consume as much as one seer of bhang in one day, but they cannot take such quantities for a number of days without reducing its quantity in the meantime for one day in every two or three days.

2.—Charas.

Quantity.	Present rate.
(*a*) $\frac{1}{16}$ tola	3 pies.
(*b*) $\frac{1}{4}$ tola	1 anna.

29. (*a*) None with bhang. With charas and ganja, tobacco.

(*b*) With bhang, almonds, cardamoms, pepper, poppy seeds, seeds of musk melon, coriander seed, and sugarcandy, etc.

With charas none.

Dhatura is not used, as it is considered to produce temporary insanity. It is used when harm is intended to be caused to the person to whom it is administered. The mixture of things shown in (*b*) is intended to enhance the effects of the preparation as a tonic and refreshing draught, and also to prevent injurious effects of bhang. Bhang massala is not known in this country.

30. Amongst Hindus the consumption of bhang is not practised in solitude. But amongst Mussalmans about 10 per cent. of those who use it drink it in solitude to avoid scandal and exposure. The consumption of charas is practised in solitude, by about 10 per cent. of Hindus and 15 per cent. of Mussalmans who consume it. The use of bhang is not confined to male sex; prostitutes and other females of low principles commonly use it. Its use is mainly commenced after adult age, but in hot season the "sukho" or "abo" is given to boys and girls also. The use of charas is confined to male sex, but many prostitutes and women of ill-repute also use it. Children do not use charas.

31. The habit of drinking bhang is easily formed, if a person associates with habitual drinkers and hears their accounts of the pleasures and lively sensations they enjoy. It is not difficult to break off the habit in the commencement. If a person habituated to its use ceases its consumption, loses appetite, feels thirsty and out of spirits. The use of whey or cooling syrups removes the thirst, but does not stimulate his appetite. In the month of Ramzan many drinkers of bhang and charas cease the use of these drugs without endangering their health. But they cannot forego its use entirely. In the month of Ramzan they take bhang or smoke charas after breaking the fast. It is not easy to break off the habit so easily without injuring one's health, as the use of the drugs becomes as it were part of their diet. The habit of smoking charas is not easily formed; it requires association of its consumers for a considerable time before the habit is formed, and it cannot be broken off easily for the reasons given above. There is no tendency in the use of any of these drugs for moderate habits to develop into the excessive, as I have seen many persons consuming these drugs in moderate and excessive quantities without the risk of developing their habits into excessive use of the drugs.

32. There is no custom, social or religious, in regard to the consumption of these drugs known in this country.

33. Amongst Hindus the consumption of bhang in its liquid form is not in disrepute, as the plant is called to be Shiva or Mahadavi's buti. But amongst Musalmans, on account of its prohibition by the Muhammadan religion, its use is held in disrepute.

The use of charas and ganja are held in disrepute by Hindus as well as Mussalmans on account of their injurious effects, and by the latter also on account of religious prohibition.

There is no custom of worshipping the hemp plant even by Hindus known in this country.

34. It would certainly be a serious privation to the habitual consumers to forego the consumption of the drugs they use, specially to the fakirs, jogis and sadhus. It would be serious privation to all the habitual consumers stated in paragraph 26, and my reasons for this opinion are given in paragraph 31.

35. It would not be feasible to prohibit entirely the use of any of these drugs, as such a measure would certainly lead to smuggling and illicit consumption. Their use could only be prohibited by a special law prohibiting the cultivation of bhang, manufacture and imports of its preparation. But the prohibition would certainly occasion serious discontent among the consumers for the reasons given in paragraphs 31 and 34, and the discontent would undoubtedly be a political danger, as the fakirs, jogis and sadhus will not fail to excite the less rational classes of people. In habitual excessive consumers the prohibition is very likely to be followed by recourse to alcoholic stimulants and other drugs to a great extent, but in moderate habitual consumers to a very less degree,

as alcoholic stimulants are not considered to be cooling and refreshing in their effects.

36. Alcohol is not being substituted to any extent for any of these drugs. Alcohol is used by people for its own sake.

37. Do not know, as ganja is rarely smoked in Sind; and I could not get hold of a ganja smoker to describe its effects.

38. Do not know.

39. Do not know, as there is no preparation of hemp, the smoking of which is considered to be less injurious than drinking or eating the same. The smoking of all the known preparations of hemp are considered to be more injurious than those which are drunk or eaten.

40. The answer to this question will be found in Appendix A. All Native Doctors are guided by the instructions given in *Makhzan adviyah* and use all the medicines according to their properties as expounded in that book.

I do not know whether any of them are used in the treatment of cattle diseases.

41. (*a*) As a food accessory, the moderate use of bhang is beneficial, and of charas, it is not beneficial. As a food digestive both bhang and charas are not beneficial; bhang in the cold season and charas always.

(*b*) Bhang and charas do not give staying-power except under exposure to heat and cold. I know from my own experience that a bowl of preparation of bhang in its light liquid form gives staying-power under severe exposure to the heat of sun, and it is a common saying that a drink of bhang has the effect of making the sky look overcast and weather cloudy. The use of bhang alleviates fatigue in hot season. Persons addicted to the use of bhang and charas take their accustomed allowance generally after they are free from work requiring manual labour. Ordinarily their time is about 10 o'clock in the morning and 5 o'clock in the afternoon, A smoke of charas is also taken at the time of going to bed in the night in order to get sleep. Only beggars who sit "Dharna" that go on smoking charas without taking food and thus deaden their feelings and appetite until they are paid alms. Smokers of charas and drinkers of bhang, specially those who take them in excess, are notorious for their sluggishness after they take these drugs. When the intoxication comes on, they feel sleepy and cannot exert much, as their bodies become heavy for them to drag about and lose their wonted lightness.

(*c*) No; on the contrary, the presence of too much fluid in the system of drinkers of bhang subjects them to constant attacks of fever and other diseases in malarious and unhealthy tracts. Please see also Appendix A on this point.

(*d*) The moderate use of the thin liquid preparation of bhang alleviates thirst, refreshes the drinkers and stimulates their appetite in the hot season.

All classes use the watery preparation of the bhang and their numbers have been given in paragraphs 24 and 26. I refer to both moderate habitual as well as to moderate occasional use of the drug.

42. In the hot season in the Upper Sind districts, where the heat is intense and weather dry to the extreme degree, the moderate use of the light watery preparation of bhang is both beneficial and harmless. It acts as a diaphoretic, stimulant, diuretic and refrigerent. Its moderate use throughout the hot season from the middle of March to the middle of October does not in any way tend to the engendering of any of the diseases and disorders described in Appendix A. In this respect I differ from the conclusions arrived at by the author of the *Makhzan adviyah*, as in this country in the strong heat and dry climate we find natural antidotes for counteracting any ill-effects likely to arise from the use of bhang in its liquid form. Even in the cold season there is sufficient heat and dryness in the climate to counteract to a certain extent the evil consequence of using the preparation in its light watery form. The effects of charas, on the contrary, are most strong, and combined with intense heat and dryness of the climates, its moderate use even cannot be considered to be harmless.

43. Yes; they are inoffensive.

44. (*1.*) *Bhang.*—It is refreshing, produces moderate degree of intoxication after an hour or so, allays hunger in the commencement, and creates appetite, when intoxication comes on. The effect lasts from 3 to 6 hours. Its after-effects are laziness, heaviness of limbs, flatulence, etc., in the cold season.

(*2.*) *Charas.*—Is not refreshing, but produces intoxication immediately. It does not allay hunger, but creates appetite. Its effects last for one or two hours only.

The want of subsequent gratification does produce longing in habitual consumers of the drug.

45. The habitual moderate use of light watery preparation of bhang in the hot season does not produce any noxious effects, physical or mental; it does not impair the constitution, injure digestion or cause loss of appetite, produce dysentery, bronchitis or asthma. But the moderate use of charas does produce noxious effects, physical, mental and moral. It impairs the constitution, specially the brains, on account of its hot and dry effects; it does not injure the digestion or cause loss of appetite, as its moderate use does not affect the bowels nor does it cause dysentery, bronchitis or asthma. Among Mussalmans the moderate use of bhang and charas impair the moral sense and induce habits of immorality, but not of debauchery. The moderate use of charas deadens the intellect, but does not produce insanity. Bhang does not deaden the intellect or produce insanity by its moderate use.

46. The habitual excessive use of bhang and charas produces noxious effects, physical, mental and moral. It impairs the constitution, injures the digestion, causes loss of appetite, produces weakness of lungs, the use of bhang on account of its unfavourable properties stated in Appendix A, and charas on account of its strong hot and dry effects. It is a common saying that the habitual excessive use of these drugs acts on the human system and undermines it the same way as salt deteriorates the land which is impregnated with it, It impairs the moral sense, induces laziness, habits of immorality, but not of debauchery, as their masculine powers are weakened to the lowest degree, as is shown in Appendix A. It deadens the intellect and produces insanity; but the habitual excessive use of bhang alone produces insanity very rarely; it is the combined excessive use of bhang and charas that produce insanity. Being not a professional man in medicines, I cannot say of what type their use produces the insanity. My impression is that the use produces dementia.

I know only of one case of temporary insanity. In the year 1880, I was Head Clerk and Head Munshi in the Office of Assistant to Agent, Governor General in Baluchistan, stationed in Jacobabad. One Havildar and a number of Police sepoys guarded the office and treasure placed in it. The Havildar was given to the moderate habit of using bhang in its liquid form and smoking charas. One day when I went to the office I was informed that the Havildar had become mad; I saw him myself; he was talking incessantly and quite incoherently, but was otherwise harmless.

I learnt that he had been indulging some days previously in the excessive use of bhang and charas, which had produced the insanity.

Knowing hot and dry effects of charas, I ordered some sepoys to seize him and pour over his head a few vessels of cold water morning and evening, as it was, I think, the month of July or August. The process was repeated for two or three days and the man became quite sane again.

47 and 48. Do not know.

49. The moderate habitual use of any of these drugs is not practised as an aphrodisiac by males or prostitutes, as its habitual use does not excite the sexual powers. It is the occasional moderate use of bhang which is used as an aphrodisiac in its watery form both by males and females. But male persons who wish to enjoy the pleasure of sexual intercourse use bhang in its preparations of majums. Bhang and majums are used also for the cure of spermatorrhœa and checking speedy emission in sexual intercourse. Charas has no such effects. The moderate occasional use of bhang and majums is not injurious for these purposes, and does not tend to produce impotence. Even their moderate habitual use does not produce impotence, although it weakens the sexual powers.

50. The excessive occasional use of bhang and majums is also practised for the purposes stated in paragraph 49, and is not more injurious than the use of bhang as an ordinary narcotic. But the habitual use of any of these drugs, *viz.*, bhang and charas, is certainly injurious, but does not produce complete impotence except in persons of weak and sickly constitutions and indifferent health, and who are not in affluent circumstances to get substantial things for their food.

51. No. The moderate use of these drugs has no connection with crime in general or with crime of any special character.

52. When out of employment or without means excessive habitual consumers of these drugs generally take to begging. Some proportion of them, say, about 5 per cent. take to thieving habits also. Such persons are well known for their timid and cowardly habits, and seldom engage in the perpetration of serious crimes, such as murders, dacoity, robbery, house-breaking, theft in dwellings, etc.

53. No. No.

54. No.

55. Yes. A bowl of thick preparation of bhang or two or three strong puffs of charas placed in the bowl of hukka with tobacco are said to produce complete stupefaction in a person not used to these drugs. But criminals invariably add some dhatura with bhang before inducing their victims to partake of these drugs.

56. People in affluent circumstances add almonds, pepper, coriander seed, musk melon seed, sugar-candy and other articles to modify the effects of hemp whether they use it in moderation or in excess. But even these admixtures cannot prevent the ill-effects of hemp in habitual excessive drinkers for a long time. They suffer more or less from one or more of the diseases and disorders stated in Appendix A. I do not possess any information regarding the admixture of dhatura for personal consumption, but it is mixed in hemp and administered to others in order to do them harm, as the administration of dhatura produces temporary insanity or stupefaction.

57. Do not know, as ganja and charas are not eaten or drunk in this part of the country.

58. I consider the present system of excise administration working well, and requires no improvement.

59. Requires no answer.

60. Ganja is not produced in this province.

61. Charas is not produced in this province; it is imported from Amritsar and Lahore, where it is brought from Yarkhand and Afghanistan.

62. Under the present Abkari Law, Bombay Act No. V of 1878, there is no prohibition or restriction of any kind for the growth of the hemp plant either for manufacture of bhang or for its fibre. For the latter purpose solely the plant is rarely sown; it is for the production of bhang that it is mainly cultivated. Cultivators of hemp are at liberty to keep the entire plants within their premises without a license, and under section 16 of the Act no license is even necessary for the sale by a cultivator or owner of any plant from which an intoxicating drug is produced, of those portions of the plant from which the intoxicating drug is manufactured or produced, to a person holding a license for the sale of intoxicating drugs or to a person licensed under this Act to manufacture or to export intoxicating drugs. The process of manufacturing bhang being only separation of the branches from the stalks of the plants in the case of "ghundis," and separation of leaves, flowers and seeds in the case of bhang "kuto" or "chur," the cultivator or owner of the plants runs very little or no risk in the so-called process of manufacture, and its use by him personally, in making presents to his friends or in carrying on sales to others in outlying villages where no licensed shops for its vend exist, and persons addicted to its use get their bhang at a nominal price. It is the entire absence of any prohibition or restriction that leads to smuggling and unlimited consumption of the drug. I would therefore suggest that the cultivation of hemp should be restricted, and not allowed except under a license, and its crop should not be reaped except in the presence of a village officer, who should see that if the plant has been grown for its fibre only, the leaves, flowers, and seed are separated in his presence and destroyed; that if it has been sown for the manufacture of bhang the entire stalks are stacked in a place to which the cultivator does not get access except for its sale by the permission of the taluka officer, and the sale to take place in the presence of the village officer. These restrictions will prevent the abuses which occur under the provisions of the existing law.

63. I have no objection to the present system of wholesale or retail vend of ganja, charas or bhang.

64. No.

65. I have no suggestions to offer under this head.

66. Ganja is not used in this part of the country, and I have no suggestions to offer under this head.

67. No.

68. There are no houses or shops licensed for the sale of these drugs or their preparations where they may be consumed on the premises. If such shops are licensed and the consumption is allowed upon them, the consequences would be mischievous, as the shop-keepers for the advantage of effecting sales of large quantities of these drugs in order to gain large profits would tempt the consumers to their habitual excessive use beyond proportion.

69. The wishes of people are considered, and very often consulted before a shop is opened in any locality. If people object to the opening of a shop in their neighbourhood, their objections are considered, and the question decided on its merits.

70. I have no facts regarding the importation or smuggling of hemp drugs from Native States to which I wish to draw attention. Duty is really paid in respect to the charas used in this district as it is imported from the Punjab. But in respect to bhang, please see remarks under paragraph 62.

Appendix A.

Description of the bhang or hemp plant as given in the Makhzan-Adviyah (meaning Treasury of Medicine or Materia Medica in Persian).

Qanab.—Is an Arabic term, and is said to have been derived from the Persian word "Kanab." It is also called Abaq. In Yunani or Greek it is called Wadifurunas; in Surayani or Hebrew, Qab Nira; in Roman, Kataney; in Persian, Kanab and Bang; in Hindustani, bhang.

According to technical phraseology it is called, Warqul Khayal (Leaf of thought).

Juzu Azam—The greatest necessary.

Hashish—Dried grass.

Hashishtul Fukra—Grass of the mendicants.

Nisbat-Afza—Enhancer of pleasure.

Falaktaz—Refresher of the sky.

Arshi-Numa—Indicator of the Heavens.

Habatul Masakin—Grain of the poor.

Shahwat Angez—Exciter of lust.

Munisul Humum—Soother of griefs.

Chatri Akhzar—The green crown.

Zamurud Rang—Having the colour of emerald.

It is said that ropes and cloth are made from the fibre of its stalk, but the wearing of such cloth is prohibited, as its use weakens the joints and produces debility. Very good paper is manufactured from its fibre, and in Kashmor the paper made from it equals in fineness the paper manufactured from the silk fibre. From the flower, deposit of dust and dew or resinous matter, which stick and thicken upon the plants, is manufactured charas which is smoked in the bowl of a hukka and produces strong intoxication, specially the dew deposit or resinous matter, which the more sticking and thick the more effective it is.

It often happens that on account of its powerful intoxicating qualities the charas kills its smokers.

Its description.—It is a well-known plant, which is procurable in most places, like India, Kashmir, Bengal, Zang, Rome, Persia, Irak, etc. It is said that its preparations stated above are different in effects from one another. The preparations of the plants grown in Irak and Bengal are weakest of all. Some say that the preparations of Persian hemp are stronger than those of the bhang of Rome. The plants are of three kinds, *viz.*, bari (grown in the desert), bustani (grown in the fields), jabli (grown in the hills). The bari and jabli hemp is stronger than the bustani. The bustani is in fact the real "bhang," as its fibre can be peeled off. The longest height to which the plants grow is 5 zara (zara is a measure the length of which is from the top of the thumb to the end of the little finger, *viz.*, about 7 inches), its stalk is hollow inside, its branches are thin which bear from 5 to 9 leaves only, and mostly, the plants grow solitary, are coarse, with colour deep green, its flowers are thin, with grey colour, its seed is round, and is called Shahdauj, and in Persian Shadana. The plants of the bari and jabli are shorter than those of bustani, and their fibres cannot be peeled off easily; if any fibres can be separated, they are not serviceable. Their branches resemble those of the holly-hock (gulkheru) and have dark colour; their leaves are also like the leaves of the bustani, but are coarser than those of bustani; but their colour is less dark, with grey colour predominating. Their flowers are red, their seeds are like pepper resembling the black-berry. Their root is called Mughas, a medicine used like the root of a wild pomegranate plant. Shekh Ibin Betar says hemp is of two kinds, *viz.*, bari and bustani; and the third kind called the Indian hemp was not seen by him anywhere except in Egypt, which is called the gunny plant, is sown in the fields and is strong intoxicant; that any quantity more than quarter of a tola produces very strong, intoxication, deprives of consciousness and sense, produces insanity, and often kills the person using it in such large quantities. It is largely used in preparing majum, etc.

Its nature.—Its leaves possess stimulative properties which act on the principal organs, *viz.*, heart, head and liver, but produce cold and dryness in the third stage of digestion, accompanied by slight heat and much flatulence which predominates. Its seed produces heat and dryness in the third stage of digestion; its bark or fibre produces cold and flatulence to the extreme degree. Its wood is cold and dry to the medium degree.

NOTE.—Third stage of digestion means that state at which the food or other things enter the bowels after leaving the duodenum.

Its effects and peculiarities.—It is a plant the leaves of which being possessed of an admixture of stimulative properties, in the commencement produces cheerfulness, improves the hue of the complexion, and brings on intoxication, in consequence of the slight heat and dryness which exist in its nature. After the disappearance of the heat and dryness on account of the predominant nature of the flatulence, the opposite effects follow. Also on account of the presence of the heat, its use dims the thoughts and intellect, increases thirst, stimulates appetite, and excites lust on account of the existence of the slight stimulative effect in it; but in the end produces the opposite consequences and becomes the cause of gloomy thoughts, dim vision of the eyes, and their weakness, of melancholia, insanity, cowardice, great timidity, dropsy of the belly and the like diseases, the loss of masculine power, as the use of the hemp exhausts the semen. Sweets enhance, whereas sour things lessen, its effects. The powdered leaves of the bari hemp

are used as snuff for discharge of matter from the head, their liquid as a wash for the destruction of lice in the hair of the head, their liquid and oil for the cure of pain in the ears and destruction of worms in them. Eating its leaves absorbs watery substance in the abdomen, produces costiveness, is diuretic, checks spermatorrhœa, thickens and exhausts semen. The use of its fibre destroys masculine heat and exhausts semen. The powder made from rotten hemp heals wounds and cuts. The liniment prepared from the roots and leaves of the bari hemp is used as a deobstruent for the removal of glandular swellings due to heat and scrofulous tumours. If its dry leaves half pounded, warmed by a little hot water being sprinkled over them, are placed upon warmed leaf of a fig tree and are then bandaged over testicles, they benefit their effusion and swellings. Its seeds when eaten remove nausea, disturb wind in the abdomen, produce fluids which lessen temperature, bring on costiveness, thicken and exhaust semen. Its drink exhausts semen. The natives of India, specially mendicants, drink it to a very large extent. They are deluded by their false notions that its drink increases the age and promotes the power of thought and intellect. Many of these classes grind it, dissolve it in water, pass the preparation through a piece of cloth, and drink a bowl of it every morning and evening. If any one belonging to their class appears in their company, he is also offered a bowl of the preparation as a matter of courtesy; some take dry leaves, parch them a little and chew them for a long while. Some mix the dry and parched leaves with some other dried articles or with gingelly seed or with sugar, make a powder, and then eat it. They display great cheerfulness and pleasure, as in the commencement its effects stimulate their animal powers. They eat various kinds of food which they feel palatable and can digest them. Their bodies become gradually corpulent on account of accumulation of fluids and they then get involved in bad diseases such as dyspepsia, flatulence, rumbling of the intestines, bloatedness, deformity of the complexion and colour of the body, loss of masculine power, loss of teeth, bad smell in the mouth, laziness, cowardice, immoral thoughts and imprudence. They lose their faith in their religion, neglect prayers, and draw others also in the vortex of their own immoral and degraded principles; some prepare "majums" from hemp and eat them. To prevent its constipative or costive effects, hemp is sometimes boiled in milk, which is then made into curd from which butter is extricated; that butter is then used in lieu of hemp. Sometimes boiled milk is used in the various preparations. If stronger effects are wanted, some charas is mixed in the "majums."

NOTE.—Majum is prepared in different ways; the common kinds of it are—

(1) Cakes.

(2) Electuary.

In preparing "majum" many other medicines are used in addition to hemp.

Appendix B.

PROCESS OF MANUFACTURING GANJA, CHARAS, MAJUM AND BHANG AND OF PREPARATION OF THE DRINK OF BHANG.

1. *Ganja.*—When the female bhang plants are cut down, the branches with the leaves and seed on are separated from the stalks and are buried in a pit four or five feet deep. Before consigning them to the pit, its bed is coated with goat dung, and another lair of the same dung is placed on the branches after they are deposited there. The pit is then filled in with earth in which the branches remain for 15 or 20 days, wherein the leaves and the seed gradually pass through a process of preservation. The branches thus preserved are then taken out and sold as ganja. The persons who use ganja strip off the leaves and the seed from the stalks of the branches and crush them well by their hands. The crushed mass is then heated on a cinder, and made into small lumps or cakes which are smoked in the bowl of a native "hukka" along with tobacco.

2. *Charas.*—This is manufactured in two ways: (1) the manufacturers of charas put on tight shirts made of leather, the outer surface of the shirts is greased, and the men then walk to and fro amongst the bhang plants, from which they receive resinous matter and dust deposited on the plants and foliage upon the skins to which they adhere easily. There is another method also, and it differs from the above method only in one respect, *viz.*, that the persons put out their clothes, wear only a strip of cloth round their loins, apply oil to their bodies and then walk to and fro in the bhang plants. The resinous matter, dust and the foliage are then scraped from the skins or the bodies, are pounded together and made into lumps of charas. This kind of charas is characterized by its dark colour and dust-like shape. It is generally made in the Native States in India.

(2) The female plants are cut down when rip and let to dry. When they are properly dried, they are placed upon blankets or thick cloth on which they are well beaten by sticks. The coarse foliage and the stalks are separated, and the fine portion is gathered and made into cakes or lumps of charas in the following manner. A quantity of the fine matter is placed in a piece of cloth and rolled into a lump or a cake which is then held before the fire. When heated, the oil and resinous matter in it stirs up and makes the lump soft and doughy. It is then removed from the cloth and let to dry. This process of making the charas is peculiar to Afghanistan, and the charas imported from there is well known for its pale green colour. It is highly appreciated by the persons given to smoking it.

3. *Majum.*—It is made in various ways. The common method of making it is this. A quantity of bhang seed is pounded and mixed with honey or soaked sugar. It is eaten by people chiefly for the purpose of enhancing the pleasures of sexual intercourse and is used either in its soft and doughy state or is made into cakes dried and then used. In order to increase its effects various seeds and fruits are added to it. To enhance its effects oil extracted from bhang is used in the preparations of the various kinds of majum.

4. *Method of preparing bhang from the plant.*—The method of preparing bhang ghundiun is this. The entire branches are removed from the plants and carefully dried and preserved.

The method of preparing bhang kuto or bhang chur is that when the plants are well dried the leaves and seed and bunches of leaves and seed are picked and mixed together. This mixture of leaves and seeds is called bhang kuto.

5. *Method of preparing the drink of bhang in its liquid form.*—The sticks and straw and other foreign matter being removed, the leaves and seed are put in a mortar of stone or baked earth, and

crushed there with the hand. Some water is then poured over it, the drug is then washed three or four times until all the dirt passes out of it in water, which is put in it afresh every time the dirty water is thrown out. It is then very minutely ground with a heavy pestle of wood. When it becomes very fine, water is poured in it according to the requirements of the drinker. The liquid is then passed through a moderately thick piece of cloth three or four times until no thick particle remains in it. The preparation is then drunk in bowls of earth specially made for the purpose called "jamni," or in any bowl made of earth or metal. By habitual excessive consumers as many as 10 or even 15 bowls of the liquid are drunk gradually at one time. An ordinary bowl would hold about half a pound of water. Some persons prefer it in a thick liquid form, and others in its thin watery form according to their taste and the amount of intoxication they desire. Thick preparation is supposed to be very strong and affects the brains.

---

6. *Evidence of* K. B. MAHOMED YAKUB SHEIK ISMAIL, *Deputy Collector and Sub-Divisional Magistrate, Sehwan, Sind.*

51. There is not a large proportion of bad characters who are habitual moderate consumers of bhang, charas, ganja or any other preparation thereof.

There is no connection of moderate use of these drugs with crime in general, or with crime of any special character.

52. With regard to excessive use of these drugs, my reply is the same, *viz.*, in the negative.

53. Excessive indulgence in any of these drugs does not incite to unpremediated crime, violent or otherwise. I don't know of any case in which it has led to temporary homicidal frenzy.

54. These drugs are not used by criminals to fortify themselves to commit a premeditated act of violence or other crime.

General remarks on the above four questions.—The use of these drugs is known to produce a feeling of drowsiness, want of activity and of fortitude, and it is more likely that even if a habitual offender falls into the habit of use of them he will take care when going in pursuit of any offence that he is not under the effect thereof.

55. It sometimes does occur (though in rare cases) that criminals in order to further their design induce their victims to partake of bhang or administer it without their knowledge in articles of food. Ganja and charas are hardly ever used for such purposes, for there is always a great hesitation to smoke it on the part of a person not used to it; and if given without his knowledge to a tobacco smoker he can at once make out the difference. It is possible that in the case of a man not used to the drug, bhang without mixture will induce complete stupefaction. No case has, however, come before me during my experience of fifteen years as a Magistrate, which I may quote to illustrate the view expressed by me that criminals in order to further their designs administer bhang to the victim. I remember there were two cases before me, but they did not end in conviction. I have come to know of certain cases disposed of by other Magistrates, and I regret I have not up to date received the information I have asked for, and as the time is drawing very close, I will submit the facts in a supplementary statement.

The information since received by me did not constitute a fit case to be mentioned as an illustration.

---

7. *Evidence of* WADHUMAL CHANDIRAM, *Pensioner, late Huzur Deputy Collector. Karachi.*

1. I got the information from farmers of the drugs, being Treasury Officer in Upper and Lower Sind.

2. According to my knowledge, bhang and ganja are obtained in India, and charas is obtained in Kelat and Khorassan, but not in India. Ganja is not prepared in Sind, but is imported from Marwar and Central India. Formerly charas of two kinds was imported in Sind.: one was a little yellow, which was known as imported from Yarkand, and the other black, imported from Bokhara, but since the past ten years the latter kind is not obtainable in Sind. These definitions may be accepted for Sind except as shown above, and these drugs are known here—bhang, ganja and charas. Bhang is also called subji—means green.

3. Bhang only is grown in Sind, but it is nowhere abundant.

4. Bhang is known by two names, bhang and subji, and they refer to the same plant.

5. Wild hemp is produced in hills and nothing is known about its growth in Sind.

6. I cannot answer this.

7. (*a*) No.

(*b*) No.

(*c*) Yes.

(*d*) Yes, for seed only.

In Upper and Middle Sind, and to a limited extent.

8. There has been no considerable increase or decrease in the cultivation of bhang.

9. Bhang is cultivated like wheat in cold weather.

10. Ordinary cultivators cultivate bhang, and as a rule about an acre or so is cultivated with wheat cultivation.

11. Ganja is never made in Sind.

12. No.

13. This does not refer to Sind, where ganja is not manufactured.

14. (*a*) and (*b*) No.

(*c*) Yes, to a limited extent.

15. I cannot answer this.

16. Bhang is prepared generally by the people

in their houses, but it could be prepared wherever it is grown.

17. These is no particular class of people by which bhang preparation is made.

18. These drugs do deteriorate within four years although kept with care. Their intoxicating properties are lost by dryage.

19. For smoking only.

20. Only few people and generally mendicants and bad characters smoke these.

21. Flat ganja is preferred.

22. Charas imported form Khorasan is used in Sind.

23. No.

24. Fifty per cent. of the people in Sind drink bhang.

25. There is no perceptible increase or decrease.

26 and 27. I cannot answer this.

28. (*a*) One pie per diem.

(*b*) Half anna per diem.

29. No.

Yes; I know bhang massala. Some people mix sugar, almonds and saffron with bhang.

30. Generally in company and is confined to the male sex and not to any time of life, but it is hardly given to children.

31. Such habit is not easily formed, but it is very difficult to break off. Yes, there is a tendency for the moderate habit being developed into the excessive.

32. The use of all these drugs is generally injurious.

33 and 34. I cannot answer this.

35. (*a*) and (*b*) No.

(*c*) It will be difficult to enforce prohibition, and it will occasion serious discontent, but it will never amount to any political danger, and I do not think it would be followed by recourse to other drugs.

36. No.

37. Charas-smoking has stronger effect than that of ganja.

38. Not to my knowledge.

39. Charas and ganja are smoked and are never used for drinking, and bhang is drunk.

40. Bhang is sometimes advised as a cooling thing and is also given to horses.

41. I do not think so.

42. I do not think so.

43. Yes.

44. I cannot say.

45. (*a*), (*b*), (*c*), (*d*) I cannot say.

(*e*) It may do so.

(*f*) and (*g*) I cannot say.

46. I cannot discuss this.

47 and 48. Not as a rule.

49 and 50. To some extent I believe.

51 and 52. I believe so.

53. I do not know.

54. I do not think so.

55. I cannot say so.

56. I do not know.

57. Not to my knowledge.

58. I think it is working fairly.

59. I cannot give reasons.

60. Ganja is not produced in Sind.

61. Charas is not produced in Sind.

62. I do not think so.

63. I have no objection.

64. I have no objection, as the present regulations are working very well.

65. No alteration is needed in my opinion.

66 and 67. No.

68. Licensed charas shops for smoking chandu, which were really a source of misery, have been done away with, but shops for the sale of these drugs are in existence, and there is no objection to their existence.

69. Yes, the mukhtiarkar always enquires from the townspeople before a shop is allowed to be opened, and I think this is a right course.

70. No.

---

8. *Evidence of* Mr. C. MacIver, *District Superintendent of Police, Karachi.*

2. Yes; charas, bhang, and ganja.

14. Yes; bhang is.

51. Most Sindhis take bhang, it is not specially consumed by bad characters. None as far as I am aware.

52. Some criminals have been known to take bhang four times daily, but this does not cause them to commit crime.

53. Very rarely. I know of only one instance.

54. I should say not. Most Sindhi criminals take bhang, and sometimes before committing offences.

55. In the few cases I remember the offenders were chiefly foreigners to Sind, and the victims were not completely stupefied.

56. I know no case in which hemp was mixed with other substances. Dhatura is used alone.

57. I have no personal experience on this point.

---

9. *Evidence of* Rahmatala Khan, *Police Inspector, Shikarpur.*

1. I make this statement based on the opportunities of seeing and hearing which I had had in police service.

3. I do not know where the hemp plant grows spontaneously, but the hill plant called akoi is said to be grown in Tando Rahimkhan in the Karachi district. It is cultivated in abundance at Bubak near Sehwan.

4. It has no different name, but the hill plant is called akoi and grows spontaneously.

5. The hemp plant akoi grows in the hills on account of the heavy rainfall there and is more intoxicating.

7. The hemp plant is cultivated near Sehwan—

(*c*) for use as bhang;

(*d*) for seeds to a great extent at Bubak.

10. No special class cultivates the hemp plant. They belong to the same class as other agricultural cultivators.

11. That is a special hemp plant called khasi. Ganja is made from it.

12. No.

13. No restriction exists, but this practice prevails to a great extent in Hindustan and Punjab, but not in Sind.

14. The following preparations :—

(*c*) The hemp plant is cultivated to a great extent in Bubak. Ganja is used in Hindustan and the Punjab, and charas is imported from Khorasan.

15. Ganja and charas are smoked. Bhang is drunk. It is pounded and drunk. I am not aware of the methods of preparing charas and ganja.

16. Bhang is prepared anywhere in houses, *otaras* (inns) and *tikanas* (Hindu fakirs' abodes) for drinking purposes. It is prepared wherever the hemp plant is grown. But in order to make it more intoxicating it is wrapped in a cloth, covered with earth, and is heated by the fire; after which it is pounded and drunk. But I do not know of ganja and charas being prepared from the wild plant.

17. A certain portion of all classes of the people.

18. The bhang deteriorates; but I know nothing about ganja and charas. The bhang loses its effects by delaying to use it. It deteriorates after 12 months. Its effect is weakened by time.

19. They are used for smoking only. Their smoking is in practice in Sind.

20. About one-eighth of the people of all classes are addicted to it generally in all *otaras* and *tikanas*.

21. I do not know.

22. Charas is imported from Khorasan.

23. No.

24. I do not know if any eat bhang. One-fourth of the Musalmans and half of the Hindus drink bhang in *otaras*, *tikanas* and *madhis* (abodes of saniasi fakirs).

25. It is daily increasing.

26. (*a*) and (*b*) On an average half.

(*c*) Ditto one-eighth.

(*d*) Ditto one-tenth.

27. Both the Hindus and Musalmans are found in each class. Habitual moderate consumers mostly resort to *tikanas*. Owners of riding animals, both Hindus and Musalmans, and big men, drink it in order to have relief at night.

(2) Habitual excessive consumers among Hindus and Musalmans are those who at first take it as a luxury in the prime of their life, or in order to derive more pleasure from copulation. Such people gradually take increased quantities and do fall into excess.

28. (*a*) 3 pies.

(*b*) 4 annas.

29. I do not know what other ingredients are mixed, but dhatura is mixed in two cases—(*a*) If a man is a great drinker and is not sufficiently intoxicated by ordinary bhang he mixes dhatura; and (*b*) it is mixed to facilitate the commission of crime. Dhatura is mixed with bhang and administered to others.

30. One tola at the most for a moderate consumer, quarter of a seer for an excessive consumer. In company sometimes half a seer and sometimes a seer. Its use is confined mostly to the male sex. Sometimes boys also fall into the habit in a short time.

31. The habit is formed by increasing the quantity.

32. There is no religious or social custom. But some foolish Hindus and Musalmans consider it a good custom because of their ignorance. The Hindus say that it is the plant of Shiva (god), and that it is a religious duty to drink it. Ignorant Musalmans say—"Those who drink bhang live, but those who do not drink it have their lives dependent upon God." Some of them say again that it is not bhang, but it is grass; its use is lawful to the lovers of God. But such men are mostly excessive consumers.

33. It is not. In my opinion it is disgraceful to use all these drugs, for they are very injurious. I know nothing positive as to its being worshipped, but it is not worshipped here.

34. It will cause great inconvenience to excessive consumers—one-tenth of Musulmans and one-eighth of Hindus in my opinion.

35. They can be prohibited gradually. It is illicitly consumed. It should not be prohibited at once. If it were prohibited at once, it will cause discontent among excessive consumers. The discontent will not amount to political danger. But the people interferred with will cause great annoyance to public servants. Some men have less recourse to alcoholic stimulants. But generally they will use other narcotics and injurious drugs, such as dhatura, etc.

36. No.

Note.—I do not know anything. The effects of ganja are keener than those of charas.

37. The effects of ganja are keener than those of charas.

38. I do not know.

39. No.

40. It is prescribed and is used in the treatment of cattle disease.

41. I do not know.

42 and 43. No.

44. It produces a little intoxication. It is refreshing. It creates appetite. It does not allay hunger. Its effects last for four or five hours. It produces longing and uneasiness to habitual consumers. In others it produces irritability.

45. It produces habits of excess which are injurious. It impairs the beauty and enfeebles the constitution. It injures the digestive organs, and ultimately causes loss of appetite. It does not cause dysentery. It causes asthma. It impairs the moral sense by the long use. It produces laziness, habits of immorality and debauchery. It deadens the intellect. The consumer will not be completely insane, but he is close upon insanity. Insanity

will not leave him as long as he lives, provided he does not renounce the habit. If he makes it a habit again insanity will attack him again. The following are the symptoms: Irritability, foolishness, and talkativeness. Consumers do not admit their insanity. No; but the use of bhang produces mental anxiety and cares, and on account of the weakness of the brain the consumer gets no sleep. Thus he falls into excess.

46. Some persons get into habits of excessive consumption by using it either when alone or when in company with others.

47. It is not hereditary, and it does not affect the children.

48. I have given replies above in question 46.

49. It is used as an aphrodisiac. The use is a temporary gratification. The ultimate result is that it weakens the power of copulation, *i.e.*, it impairs manly power. It is used by prostitutes also.

50. I have given replies in question 46.

51. Bad characters use it moderately. Its moderate use has no connection with crime in general.

52. The offenders themselves do not use these drugs excessively, but they sometimes induce others to smoke or drink to excess in order to get opportunities of easily committing offences upon them.

53. The excessive use of these drugs incites to unpremeditated crime. In 1870, in Mirpurkhas, in Hyderabad Zilla, one bhangi (a drinker of bhang) committed a murder in a scuffle about plucking berries.

54. No; criminals, when intending to commit a serious offence, would not themselves use any intoxicating drug to excess, for intoxication deprives one of sense.

55. Yes; but those persons who are not in the habit of taking any intoxicating drug, and who are called *sufis*, will be completely stupefied if they are made to drink bhang or smoke ganja and charas to excess. Habitual consumers can only be stupefied by bhang mixed with dhatura, etc. But 'akoi,' the wild bhang, if administered to any one, even without admixtures, will bring on stupefaction.

56. In both cases the effects are modified by mixing dhatura. In 1891, 31st May, accused Sheikhal, Mohmadali and Shah Mahomed administered bhang mixed with dhatura to Suchal, who was thereby suffocated, so that he died. This offence was committed in Shikarpur.

57. It is not customary to eat ganja and charas in this province.

68. There are licensed shops.

---

10. *Evidence of* Rao Bahadur Lakshmansing Matthraji, *Police Inspector, Hyderabad, Sind.*

1. have passed my life in Sind, and have visited many parts of it as a Police Officer. I have come in contact with consumers of ganja, charas and bhang, and have thus acquired experience.

2. These definitions are correct. Bhang is also called the humble plant in Sind other names are same.

3. I do not know. It does not grow in this province.

4. (1) bhang, (2) sawai, (3) saee, (4) the humble plant, (5) bubkain, (6) sabzi, (7) nangin, (8) sukho. All these names refer to the same plant. There is another kind which is called akoi which is more intoxicating than others and it grows in hills on rainfall. It is never used as bhang, for it is very intoxicating and brings on unconsciousness.

5. I do not know. It does not grow in this province.

6. It does not grow in this province, hence I do not know.

7. Yes.

(*a*) and (*b*) No.

(*c*) Yes.

(*d*) Not for fibre, but for seeds.

It can be cultivated anywhere in Sind, but it is cultivated in the following places:—Khibar, Taluka Hala, Zillah Hyderabad, Bubak, Zillah Karachi, villages Ghari Mori and Machin and in its suburbs, in His Highness the Amir Alimurad's territory and Shikarpur District. I cannot say what quantity is produced.

8. I cannot say.

9. This cultivation requires more water and more care. The soil should be rich (sweet). It should be ploughed deep. Some gay people prepare it in the following ways:—By making an incision in the stem of the bhang plant and putting opium into it, and by burying a dead snake under the plant, by watering it with dhatura water, and sometimes with huka water. All these means are employed to make the produce more intoxicating. But this is done in the case of a few selected trees.

10. Mussalmans only—agricultural cultivators sometimes cultivate.

11. The wild plant grows here.

12. I do not know. The male plant is extirpated, otherwise all the plants would become male plants.

13. It is not restricted; people can cultivate it. It can be freely cultivated in all districts, provided the soil is *selabi*, is deeply ploughed, abundantly watered, exposed to free air, and taken care of every time. No.

14. The localities have been shown under No. 7; I cannot give the exact quantities.

15. Bhang is not prepared from the wild plant in this province. As to the cultivated plant after it has obtained its usual height, it is reaped and dried in shade. The reaped plants are turned, and re-turned, to prevent their decay until they are dried. Then they are beaten; the stalks, leaves, and seeds are separated.

(*a*) Bhang is not smoked, but ganja-smokers and other poor persons smoke it as follows:—Ghundi bhang is mixed with a little water, and made into a small ball. The ball is heated over the fire. Tobacco mixed with water is bruised, and water pressed out of it. This ball is then mixed with the above ball, and is smoked in pipe.

(*b*) Bhang is boiled and made into a majum, and

is then used for eating. Roaming fakirs eat raw bhang.

(*c*) Dry bhang is soaked in water, washed, pounded, mixed with water, sifted and then drunk. Dried or wet bhang covered over with 4 or 5 folds of cloth is buried in hot ashes. It is left there for about half an hour. Then it is taken out and after undergoing the above process is drunk. This is called Popo. Bhang is parched on an earthen pan, and then drunk as above.

16. It is not prepared in houses. It can be prepared wherever the hemp plant is cultivated. The wild plant is not produced here, hence nothing can be said.

17. In this country only Hindus and Muhammadans, but a larger number of Muhammadans use it.

18. Yes; it deteriorates, *i.e.*, it loses its intoxicating effects. It keeps good for one year, after which it gradually deteriorates. Ganja and bhang can keep good for two years. As regards charas I cannot say how long it will keep good with ordinary care. It loses its effect in time. I do not think any measures can be adopted to prevent deterioration.

19. They are used only in smoking, and are put to no other use.

20. Hindus and Musalmans about three-fourths of them. In *otaras, tikanas, madhis,* and on shops of some bakers. No special places are appointed for it.

21. Flat ganja is preferred. No special places are appointed.

22. No native charas is produced. It is imported from Yarkand.

23. Bhang is not used in smoking.

24. No one eats bhang except in exceptional cases mentioned under No. 15. It is drunk by Musalmans and Hindus, about half of each of the classes.

No special places are appointed, but it is drunk in *otaras, madhis, tikanas,* but these are not specially appointed for the purpose.

25. The use of charas and bhang is increasing, for these drugs are liked by people. The use of ganja is decreasing, for it is less intoxicating. Charas-smoking produces heart-burning, makes the semen thin, and sometimes weakens the manly power, produces cough, asthma and dimness of sight. The consumers of bhang mostly like it, because it creates appetite, and gives prolonged pleasure in copulation. The consumers of bhang, after drinking it, smoke charas which gives them great pleasure and then they are gay and merry.

26. I cannot say anything about it.

27. The consumers are chiefly taken from the following classes—

Sanyasis, jogis, attendants of prostitutes, *otara* fakirs, shikaris, dheds, mochis and other labouring classes. Bad company or debauchery leads to these habits.

28. I cannot say.

29. Nothing is mixed with bhang in ordinary cases, but in exceptional cases the following are added :—Cardamoms, aniseed, succory, almonds, nutmegs, mace, saffron, pepper, and coriander, sugarcandy or sugar, pistachios. These are mixed either for cooling purposes or to get prolonged pleasure in copulation. Charas is sometimes smoked mixed with a little opium, and ganja is smoked with sandal wood powder mixed with it, so that the smoking may produce more intoxication and fragrance at the same time. Such a use is not confined to any particular class. Any man of means can do it. Dhatura is not mixed. The massala is not sold with bhang. If a man wishes to mix any ingredients, he can buy them from a grocer.

30. I cannot say. Persons of all ages, young or old men or women. Boys above ten years of age are in the habit of using them.

31. The habit is easily formed in bad company. If the consumer wishes it, he can break off the habit gradually, decreasing the quantity, provided he avoids bad company ; otherwise it is very difficult to break off. There is not a single excessive consumer who cannot take care of himself while under its influence.

32. There is no religious custom, but there are social customs connected with the drinking of bhang. The Musalmans use it in *mahram,* on marriages, mournings and festivals. The Hindus use it in *sangats, pangats* and on occasions of festivals. Its use is considered essential on such occasions. The use of bhang on the above occasions is moderate and not excessive. It is probable a habit may be formed, but it is not in any way injurious.

33. The consumers like the use of drugs, but its use is not liked by *sufis* (non-consumers of intoxicating drugs). There is no social or religious opinion about the practice. In my opinion the use of the narcotic in any form is disreputable. The hemp plant is not worshipped in this province.

34. It would be a serious privation to consumers to forego the use of the drug they consume, *i. e.*, he would fall ill, would have no appetite, would get no sleep ; but if the use is gradually decreased it is likely that its use can be foregone altogether. I cannot give any idea of the probable numbers of each class.

35. Its use cannot be prohibited. It would be illicitly consumed. It would be difficult to enforce the prohibition. The prohibition would doubtless occasion discontent among the consumers. The discontent would not in my opinion amount to political danger. Government revenue will suffer. The prohibition would not be followed by recourse to alcohol, but it is likely that other narcotic drugs would be used which would be injurious in other ways.

36. Alcohol is not substituted for bhang or charas or ganja.

The intoxicating effects of charas are immediate and heating while those of ganja are not immediate and are cooling.

38 and 39. I cannot say.

40. Physicians prescribed old bhang in gonorrhœa, for free urine, and it proves beneficial. Bhang is prescribed in other diseases too. Bhang is used in other medicines also. But as far I know, physicians do not prescribe charas or ganja in any disease. I cannot say what medicines are used in the treatment of cattle diseases.

41. (*a*) Only bhang.

(*b*) Bhang gives staying-power under severe exertion ; charas under exposure ; but charas or ganja never alleviate fatigue.

(*c*) No.

(*d*) I cannot reply to this.

42. The moderate use of bhang is not injurious, for it creates appetite, aids the powers of digestion, is beneficial in gonorrhœa. But even the moderate use of other drugs is not beneficial.

43. No, it is the humble plant.

44. The immediate effect is intoxication. The effect of bhang is that it is refreshing. The other drugs produce intoxication. The use of any of these drugs does not allay hunger. It creates appetite. The effect of bhang lasts for five or six hours, that of charas for one hour or two at the most, and that of ganja for about an hour. No other immediate effects are produced. The want of subsequent gratification produces longing to an habitual consumer. It produces uneasiness, irritability, loss of appetite, sleeplessness, dysentery and restlessness.

45. (*a*) The use of charas alone, particulars of which are given under No. 25, produces noxious effects, physical and mental but not moral.

(*b*) Nothing else, except the diseases mentioned under No. 25.

(*c*) No.

(*d*) No, but it produces asthma.

(*e*) It does not impair the moral sense, produces laziness and habits of immorality and debauchery.

(*f*) It deadens the intellect, but produces no insanity. I cannot give any more account, but doctors would be able to do so.

46. The same as under 45.

47 and 48. No.

49. Bhang alone is used as an aphrodisiac. Prostitutes use it so. The use of the drug for this purpose and its use as an ordinary narcotic produce the same intoxicating effects and do not differ. It does not produce impotence.

50. The same as under 49.

51. Yes. No connection.

52. The same as under 51.

53. It does not incite to unpremediated crime, but it will not be surprising if the consumer himself falls a victim to it. I do not know of any such case.

54. Never.

55. Criminals do so; but if the victim is a man not habituated to its use, he will be stupefied. But criminals generally mix dhatura or akoi bhang with the ordinary bhang, or with charas, or with ganja, and induce their victims to partake of it. Complete stupefaction can be induced by the drug without admixture, if the victim be a man not habituated to its use.

56. The effects of hemp are modified by mixing the stimulating ingredients mentioned under No. 29, likewise by mixing dhatura or akoi (detailed under No. 55) or other narcotic. Dhatura is not mixed with bhang for personal consumption.

57. Ganja and charas are not eaten or drunk, but are only smoked.

58. The system is working well. But the hemp cultivators secretly use bhang for personal consumption. This requires to be remedied.

59. The hemp cultivators are bound to sell their bhang to contractors, but frequently they reserve a little quantity for their own use.

60. Ganja is not produced in this province.

61. Charas is not produced in this province.

62. The cultivation of the hemp plant should not be freely allowed. It should be strictly restricted. Particular plots should be marked out where the cultivation should be allowed. It should be under the control of the zamindar and the tapedar.

63 to 66. I cannot say.

67. I see no objection.

68. There are licensed shops, but no houses. I can give no further opinion upon it.

69. Sometimes the consumers, when they meet in *otaras*, *madhis* or such other places where these narcotic drugs are generally taken, consult each other, and then subscribe to the purchase of the drug. Their wishes should be considered.

70. It is not necessary to modify the existing regulations. Such a drug is not used without the duty being paid on it. These accidents are rare, but there are sufficient safeguards against them. Consumers sometimes use untaxed drugs.

Note.

The akoi bhang grows spontaneously in hills, and does not grow in this district. Its growth depends on rains, and is not taken care of. It is called akohi because it grows in hills—koh means hill and therefore it should not be called bhang; but owing to its strong intoxicating effects the consumers call it bhang. It is not used as bhang here, nor is there any intention of so using it. It is poisonous. It is very intoxicating. There is not much difference in the injuries which would result from akoi and dhatura. If any one wants to do harm to another with intent to commit an offence, he mixes dhatura or akoi in the ordinary bhang of this country, or in charas or ganja, and induces him to partake of it; and the result is that the consumer becomes unconscious, and thus an opportunity is afforded for the committal of offence.

The note applies to answers given under numbers 4 and 55.

---

11. *Evidence of* MUHAMMAD MURID, *Police Inspector, Naushahro.*

1. I have gained my experience in the police service.

3. I hear the akoi bhang grows spontaneously in the hills.

4. (1) The ordinary Sindhi bhang.

(2) Akoi, which grows in the hills.

(3) The two-leafed or khasi bhang, which is produced in the Punjab, and from which ganja is made.

5. The consumers of bhang say that bhang which grows on rainfall in the hills is more intoxicating.

7. Hemp plant is cultivated in Bubak taluka, Sehwan Khebor taluka, Halla, and in the Khairpur State for the production of bhang seeds.

10. The hemp cultivators do not belong to any special class. They are of the same classes as other agricultural cultivators.

14. Only bhang is produced in Bubak, Khebor and Khairpur.

16. Bhang is used in *otaras*, *madhis*, and in houses.

18. The consumers of bhang say that it loses its intoxicating effects after twelve months. It loses its effects in time.

19. They are smoked only.

20. About one-tenth of the Hindus and Musalmans of Sind. In *tikanas* and *otaras*.

22. The charas imported from Khorasan is used here.

24. One-fourth of Hindus and Muhammadans drink bhang. In houses, *tikanas* and *otaras*. No one eats bhang.

40. Bhang is prescribed by native doctors for those suffering from heat, for free urine, and for stopping dysentery and diarrhœa. Majum is made from bhang seeds.

43. Nothing to that effect has come to my notice.

51. Yes; bad characters and gamblers are habitual moderate consumers of these drugs. I do not think there is any connection between such a moderate use and crime of any general or any special character.

52. Excessive use will produce more intoxication and more forgetfulness; but it appears to have no connection with crime.

53. Yes; I have heard from police officers that indulgence in these drugs sometimes incites to unpremeditated crime. Very lately, on the night of the 10th November 1893, in the *otara* of Pir Nizar Mahomed, Kowra Khokhar murdered Dodo Machhi. In the investigation it was found that they were always quarrelling about opium and bhang. Kowra confessed in his statement that Dodo used to steal away his money and opium, and used to give him his urine as bhang drink. Hence he killed him with cudgels and sticks. It was found out that Kowra used to take bhang, charas, ganja, and opium. I have no other personal experience.

54. No.

55. *Sufis* not habituated to use bhang or ganja or charas, if forced to use them, will doubtless be intoxicated, and will grow dull and will be overtaken by sleep, which will give ample opportunities to criminals to commit an offence.

---

12. *Evidence of* Mr. Geo. Judd, *Head Preventive Officer, Karachi.*

1. By constantly coming in contact with people who use hemp drugs for a period extending over 11 years and from local enquiries.

2. Yes.

19. Yes; for smoking purposes only.

20. Charas mostly by Pathans. Ganja by Hindu mendicants. They have no special locality.

21. The flat kind is smoked here.

22. Charas from Afghanistan is mostly appreciated.

23. No.

27. The poorer classes generally, and the habit is brought about by society with persons who are habitual consumers.

28. (*a*) 20 grains ganja, 10 grains charas, 100 grains bhang, and each of these respective quantities can be had for 3 pies.

(*b*) 80 to 100 grains ganja.
40 to 50 „ charas.
150 to 200 „ bhang.

The cost being in proportion to the price above quoted.

29. Tobacco is sometimes used with charas and ganja. Dhatura is also similarly mixed by very hard smokers or when a deeper intoxication is sought. There is a preparation of bhang which is much used in Sind both by Hindus and Muhammadans called thundai. In this preparation besides bhang the following ingredients are mixed:—Almonds, spice, poppy-seed, black-pepper flower of kasni and sugar. This preparation is believed to be very cooling.

30. Both in solitude and in company, and by the female sex as well. It is not usually given to children except in the case of the preparation above referred to.

31. The habit is not easily formed, and when once formed is difficult to give up. There is a tendency for the moderate use of these drugs to develop into excess.

32. There are none.

37. Both have intoxicating effects. Ganja, however, is more powerful and heating in its effects.

39. Smoking is a more injurious form of consumption since the stronger products of the hemp plant is used.

40. Yes.

41. Increases appetite. Restorative after severe exertion and fatigue. These effects are however obtained only by occasional moderate consumers.

42. I do not consider it harmless as a person labouring under its effects may be induced to commit crimes.

43. No. They are inclined to be quarrelsome.

44. It creates appetite and does not allay hunger. It is refreshing and leaves no after-effects. Yes.

45. (*a*) and (*b*) Yes.

(*c*) No.

(*d*) and (*e*) Yes.

46. It produces debility, impaired mental energy, loss of strength of character and tends to insanity.

47. If it does, it is not perceptible.

48. It will affect the offspring, causing them to be weak in intellect and idiotic.

49. Yes, by men. Yes, in the course of a short time.

55. Yes.

70. There is little or no smuggling of hemp drugs from Native States. Passengers frequenting this from Cutch ports are sometimes found in possession of bhang or ganja, but in all the cases which have come under my notice the persons were given to the consumption of these drugs, and what was found by the Preventive Department was either what was over after consumption on the voyage or which could not be used on account of sea sickness. Such passengers are however protected from prosecution under Government Resolution No. 3995, dated 4th June 1886, provided the quantity is not in excess of ten tolas in each case. Except in very stray and exceptional cases the consumption of hemp drugs is not prevalent amongst the class of sea-faring men who frequent this port.

13. *Evidence of* Mr. Geo. J. Barker, *Abkari Inspector, Karachi.*

1. As an Abkari Inspector visiting and inspecting the ganja shops during the last eleven years or more.

2. Yes. Bhang, sahi or subji, ganja, and charas.

3. The wild hemp (*i.e.*, bhang) plant is said by the ganja contractor to grow at a place called Gondrani in Lus Beyla, bordering on the Karachi District.

4. Known as *kohi bhang*.

7. The hemp plant is grown for use as bhang in the province, chiefly at Buback and Thatte (Karachi District), Khaiber in Hyderabad District and in the Shikarpur District.

8. These particulars supplied in statistical returns to Commissioner in Sind.

10. Cultivators—no particular class.

13. Ganja is not grown in Sind.

14. Bhang only is prepared for sale to the licensed contractor. Area under cultivation supplied in statistical returns to Commissioner in Sind.

16. Bhang is prepared by people in their houses from the hemp plant wherever grown.

17. Bhang is prepared in Sind. With the exception of the bhang prepared (by Sindi Muhammadans) for public use in Shaki-khanas as described (under question 68) it is usually prepared by people in their own houses.

18. They all deteriorate by keeping. The bhang and ganja lose their aroma and strength, and the charas its resinous properties. They keep good with ordinary care for about a year. Notwithstanding precautions taken, quantities of bhang, charas and ganja have to be destroyed by the contractor every year. (Ascertained from contractor and inspection of stocks in Depôt.)

19. Only for smoking.

20. Ganja smoked by Purdesees, Cutchees, Mawaris, low caste Maharattas, Fakirs of both Hindu and Mahammadan castes, and Gosains (all over Sind).

Charas by Pathans, Punjabees, Seedees Beloochees, and other Sindhi Muhammadans, Sindhi fakirs (ascertained at retail shops and by observation of customers).

21. The flat ganja is only used in Sind, it being preferred.

22. Foreign. Imported from Umritsar, where it is said to be brought from Ladak and Yarkand (in Bokhara).

23. No; it burns off too soon if so used.

24. Bhang is only drunk (not eaten) by Sindhi Hindus of all kinds, *i.e.*, (Banias, Amils, etc.) Sindhi Muhammadans of all kinds, Fakirs, Gosains, etc.

Looking at the classes who consume bhang in Karachi, I think more than half the people use bhang.

25. Slightly on increase according to accounts of retail shops. Due partly to increase of population and to the suppression of the illicit importation of ganja from Cutch, Lus Beyla and other places, and charas by rail from Punjab.

26. No returns are kept of consumers. Most consumers, especially of bhang, are habitual moderate. The habitual excessive and occasional moderate consumers are a small minority.

27. (*a*) Habitual moderate. Sindhi Hindus (Banias, Amils, etc.) Sindhi Muhammadans of the better class, Pathans, Beloochees, Cutchees, Marwaris, Punjabees and some Sidees and low caste Maharattas.

(*b*) Habitual excessive consumers, Sindi Muhammadans of the lower classes, fakirs (Hindu and Muhammadan), Gosains and some Seedees.

(Ascertained by observation and knowledge of the habits of the different classes.)

28. Habitual moderate—

Bhang, 1 pie to 3 pies.

Ganja, 1 pice.

Charas, 1 pice.

Habitual excessive—

Bhang, 2 pice (including massala).

Ganja, 2 pice to 3 or 4.

Charas, 2 pice to 3 or 4.

29. (*a*) Bhang seed, poppy seed and pepper.

(*b*) By well-to-do classes.—Dry roses, aniseed, sugarcandy are added sometimes.

Bhang massala is not sold here.

30. Bhang consumed much in company, but sometimes alone. Ganja consumed much in company, but sometimes alone. Charas mostly in company, especially by habitual excessive consumers. Consumption mainly confined to male sex. Although sometimes females consume bhang, not usual for children to consume any of these drugs.

31. The habit of consuming all these drugs is easily formed. In the case of excessive consumers of ganja and charas, it is somewhat difficult to break off the habit. Except there be strong will power, there is a tendency for the moderate habit of ganja and charas to devolop into excessive. (Ascertained from close enquiries among numerous consumers).

32. There is no religious custom in regard to consumption of these drugs. At the annual fair held at Manora and daily at some of the Hindu temples (*tikanas*), earthen pots, containing a weak preparation of bhang, are kept for general use. It is done as an act of charity. The practice is an old one and not likely to lead to the formation of the habit.

33. The consumption of bhang is generally considered as being innocuous. There is no opinion, religious, regarding the practice. Habitual excessive consumers of ganja and charas are termed Mowalees or sluggards on account of the lazy habits attained by some of these men. There is no custom as far as I can ascertain of the worshipping of the plant, but it is held in veneration by Hindu Gosains and Sadhus.

34. It would be a serious privation for consumers to forego the consumption of the drug they use. The reasons are:—

Especially in the case of bhang, about half the population, I should say, use it in moderation; to those especially who work out of doors, exposed to the heat in a Province like Sind, the use of bhang is a kind of necessity to enable them to bear the heat of the day.

Moderate consumers of ganja and charas (artisans, carpenters, dyers, stone-masons, etc.) would feel inconvenience. About one-third of the consumers, I should think, were addicted to ganja and charas.

35. It would *not*, I consider, be feasible to prohibit the use of bhang on account of its universal use.

Ganja could with difficulty be brought under control by restricting cultivation and the quantity the contractor is allowed to import and sell, and gradually reducing the same yearly, and fixing the prices (high) at which it would be sold.

Charas—Being of foreign manufacture could be prohibited, but smuggling would undoubtedly prevail.

The drug being of small bulk is easly smuggled. Prohibition would cause some amount of discontent among consumers, but less if the prohibition could be gradually applied. Recourse in case of prohibition could be had to other drugs, especially by poorer classes. Nothing could be done without co-operation of surrounding foreign States.

36. From close enquiries made I find that there are very few men who have taken to alcohol after leaving off the use of drugs. On account of the dearness of liquor it is not likely that recourse would be had to it. A pice or two of drugs satisfies a man, whereas it would require 3 annas, the price of 2 drams of the cheapest liquor, to satisfy him.

37. Charas intoxicates sooner than ganja. It heats the system and is therefore better used in cold weather. If used in the hot weather, it is said to affect the eyes; it also causes a throbbing in the temples of the head. If the habit of the consumer is to drink water after smoking, it loosens the teeth.

Ganja is cooling in its effects and is used by fakirs to suppress the passions.

38. Flat ganja is used in Sind: the contractor states it is stronger than round ganja.

39. Bhang is only drunk, and ganja and charas smoked in the province.

41. Bhang is said to be an appetiser and digestive, possesses also carminative and soporific properties. It is generally used by men following occupations which do not call for much exertion, such as merchants, brokers, clerks, shopkeepers, camel-drivers, etc.

Charas and ganja are said to give staying-power under severe exertion, on account of which, and as being a cheap intoxicant, they are much used by labourers, artisans (carpenters, blacksmiths, stone-masons, dyers, etc.) I have interrogated many men following such avocations, and they say that these drugs enable them to undergo severe exertion, and that they partly act as appetisers. It might *in their case only* act as such, but in the case of men given to slothful habits, I think it would not; as I observed that such men who use ganja and charas have not the healthy look that labourers and artisans have.

(*c*) Have not heard of them used as a febrifuge.

42. Bhang, I consider, would be harmless to men who, using it in moderation, ate well of sufficient nourishing food.

Ganja and charas are only suitable to men following callings requiring severe exertion or to men of a robust physique: in their case, provided they ate well.

These drugs would be beneficial only as enabling them to undergo exertion. I have come to these conclusions by observing the condition of the men whom I have interrogated.

43. Yes.

44. The effect of the moderate use of these drugs on moderate habitual consumers is refreshing.

Bhang produces slight intoxication, creates appetite, cools the system by removing bile, produces indisposition for work immediately after consumption. Habitual consumers feel the want of the drug, but nothing more. Intoxication lasts ½ to 1 hour.

Ganja produces intoxication lasting from 1 to 2 hours, is refreshing to those who are hard workers, such as labourers or artisans (by others used as an intoxicant only); it cools the system, but does not create appetite. Little or no after-effects to those subject to active work and who eat well.

Charas warms the system—intoxication like that of ganja, but wearing off sooner, refreshing and appetising to hard workers and robust men. Want of gratification produces longing. Little or on after-effects to hard workers and robust men who eat well.

45. Bhang used moderately is said not to impair the constitution.

Ganja and charas can be used even in moderation and without apparent injury to constitution by men leading an active or labourer's life and who eat well. Pathans, Seedees, and others who use charas moderately, do not suffer by it, as they live well and are of a robust constitution.

46. Bhang is difficult to use excessively being taken in a liquid form and a small quantity of the drug being used in its preparation.

Ganja and charas both thin the vital sap, and are apt to produce impotence, especially ganja.

Charas affects the eye-sight, teeth, and chest causing coughing and asthma.

I have come to the above conclusions from questioning closely many habitual consumers, who have been smokers all their lives.

57. Ganja and charas as invariably smoked in this province, and not eaten.

58. I consider it to be working well.

60 and 61. Ganja is not produced in Sind.

62. Cultivation might (if necessary) be confined to some central part of the province only, so as to minimise the possibilities for the removal of the drug illicitly.

63 and 64. No.

65. Yes.

66. *Only flat ganja is* used here. Contractors should be encouraged to use the best ganja so as to reduce the temptation to the smuggling of a quantity of ganja superior to that used.

67. No.

68. In Karachi, there are places called Shakikhanas, where bhang only is prepared and sold. These have been in existence for very many years and have been brought under control, and the number of them limited. They are a convenience

to those of the poorer classes, travellers, etc., coming on business to Karachi and who have not the vessels or the time to prepare their drinks of bhang.

69. The numbers of shops are regulated according to the demand for them. No new shops are opened without the actual necessity for such.

70. Ganja is sometimes imported illicitly in small quantity at a time into Karachi from Cutch ports and from Lus Beyla, both foreign States. The ganja used in Lus Beyla and, I think, in Cutch also is brought from Panwel, Kolaba district, Bombay, on payment of *a nominal duty of 8 annas* per maund, and being *sold cheap* in these States it is smuggled across here.

If these States paid a higher duty and raised the prices of ganja, smuggling could be reduced considerably.

---

14. *Evidence of* Rao Bahadur Alumal Trikamdas Bhojwani, *Deputy Educational Inspector, Karachi.*

1. Enquiry from dealers in the drugs and personal inspection.

2. The leaves of the hemp plant are locally known by the name of bhang or subji, and the definition of Dr. Prain may be accepted.

Neither (1) charas nor (2) ganja are manufactured or grown in the Karachi district, to which my experience and knowledge are confined. Charas is imported by the Karachi Government farmers from Amritsar, which is said to obtain it from a place called Ladak and from Yarkand. The vulgar notion will not endorse the definition of charas as given herein.

Ganja is obtained *viâ* Bombay from Panwel and Barsi and other places; and Dr. Prain's definition of the drug would appear to correspond with the popular notion, and to be supported by the general appearance of the article.

3. I am not aware of the spontaneous growth of the hemp plant in any part of the Karachi district.

4. The hemp plant cultivated for bhang is locally known as bhang, subji, Sivaji buti (Shiva's plant). According to colour, bhang is divided into kaki (brown) and saye (green).

5. As regards the wild hemp, the conditions are unknown.

7. (*a*) and (*b*) None.

(*c*) and (*d*) Yes, at Bubak in the Sehwan taluka; and I believe it used to be cultivated in the Tatta taluka about the Calri canal and in the vicinity of the Fakirjo gate.

9. The ground intended to be sown with bhang is first watered and made soft. It is then furrowed twice over and the seed thrown broadcast. The earth is then turned over once more with a plough and levelled with a roller. All the furrowing, ploughing, and sowing must be done and completed in one and the same day. When the seed shoots up to the height of about two inches the ground is watered for the first time and the weeding commences. It is usual to separate the shoots also from one another to the distance of a span at least, and hence all intervening shoots from the seeds thrown broad-cast are rooted out. When the plant grows to the height of a foot and a half, or even earlier, and as soon as its leaves spread out and overshade the ground, the weeding is discontinued, and this is generally after the third watering. The watering operations continue until the white seeds change colour and turn blackish or brown. After the plant grows to the height of over a foot the ground is well manured and then watered over. Before ploughing and sowing no manure is, as a rule, put in the ground for fear of a white kind of worm which is generated in the ground and eats up the sap of the plant, which consequently dries up. At Bubak it is not usual to manure the ground more than twice before the plant reaches the height of a foot and over. In the majority of cases, however, one good manuring at one foot height is held to be sufficient for all ordinary purposes, unless greater height in the plant and heavier weight in the final produce be sought for. When the plant reaches the height of about five feet the male plant, which is distinguished by its blossom or its small-sized pale green flower, is rooted out to provide more growing space for the female plant. The male plant is held to cause giddiness when used, and this is another reason for its extermination as a precaution against the mixture of its leaves with those of the female plant.

When ripe, as judged from the changed colour of the seed and absence of moisture when pressed, the plant is reaped, dried in the field itself, and thrashed when dry. The stalks are then separated from the rest of the produce, which is carried away. A part, and a very small part, is winnowed in order to separate the blackish seed useful for sowing. The whiter seeds and the blackish not wanted for future sowing are left mixed with the leaves and the thinner twigs.

Hemp fibres, or fibres like the hemp fibres, are grown from "sihato," which is a kind of hemp plant also, but locally known as "sihato" against "sireen," which is the local name for the hemp plant proper. Similar fibres are produced from the leaved "Ak" plant or "milk bush," not the thorny "Ak." The "Ak" and the "sihato" stalks are soaked in water for two or three days, and when sufficiently soft they are thrashed, when the outer coating, or the uppermost thicker skin, is separated from the fibres. Such outer covering of the "sihato" stalks was, and I believe is still, used in the preparation of country matches, being so ignitible.

Hemp fibres are also prepared from the thicker part of the stalks of the bhang hemp plant. But the bhang plant stalks are usually buried in soft wet mud for a few days instead of being soaked in water, as in the case of the "sihato," the regular hemp, or the "Ak."

10. At Bubak it is the Hindu Haris who in the main cultivate the hemp plant for bhang. Elsewhere, too, I believe, it is the Hindus who cultivate it. The bulk of the agricultural cultivators are Muhammadans.

13. In the district with which I am conversant the hemp plant is not cultivated for ganja.

14. Yes. The bhang (*c*). Extent not known. For *where*, please see answer to question 7 under chapter II.

15. A.—Bhang is smoked by people used to

ganja and charas when they are not able to procure either of the latter drugs. The leaves are washed thrice, then wrapped up in a wet cloth and baked in hot ashes. The leaves so prepared are mixed with tobacco and smoked. The residue of the bhang used for drinking, the ground hemp (bhang) called "jog" (locally) is smoked in place of ganja or charas.

B.—Bhang is eaten also; and it is done in two ways—

(*a*) the leaves are wetted, dried, and then pounded. When, ready, the quantity so prepared is mixed with a varying quantity of sugar, and doses are swallowed with water.

(*b*) In the shape of majum, prepared from the bhang oil.

C.—Bhang leaves used for drinking are thrashed after reaping, dried and washed thrice before grounding and admixture of essence with water.

16. The question is not very plain; but by preparation I understand preparation immediately before drinking, which is done by people at home. But if preparation refer to the earlier stage of the article's collection, then the process is gone through in the field.

17. The cultivators themselves prepare the bhang by thrashing, as detailed under question 9.

18. Yes. Time affects both its effect and flavour. Bhang does not keep beyond two years.

19. For smoking only, so far as my information goes.

20. Ganja is smoked by nearly the whole or the greater majority of the mendicants and clerical classes and the labouring classes (particularly the Muhammadan labourers in large towns), by the Katchis, Bhils and Pardesis.

The Muhammadan labourers of large cities in Sind are said to delight more in smoking charas than ganja.

21. Round ganja.

22. Foreign. Please *vide* answer to question 2, paragraphs 2 and 3.

23. Bhang is used for smoking sometimes along with tobacco. Please see answer to question No. 15.

24. Bhang is drunk almost all over the province by Hindus and Muhammadans.

25. The use of all three drugs would appear to be on the increase, as the Karachi Government farmer informs me. Association with people habituated to the use of the drugs is said to be the cause of the increase in the use.

27. Hindu merchants and traders, including shop-keepers and elderly retired Government servants and Muhammadans of the artisan class, are habitual moderate consumers of bhang.

People belonging to the mendicant and clerical orders (Hindus and Muhammadans) are generally habitual excessive consumers.

29. Ganja and charas are mixed with tobacco for the purpose of smoking. Bhang is ordinarily drunk unmixed; but to serve as a cooling drink it is mixed with the following ingredients:—Kaskhas, souf, dhana, black pepper, gidra seed, badrung seed, and rose buds.

For the purpose of lust, the above plus the following:—

Elachi, kasni, badamis, saffron, milk and sugar-candy.

30. Bhang is in the main drunk by the male sex; but women, too, in the hotter parts of the district have taken to the drinking of bhang as a cooling draught. It is not unusual now for children in Karachi town to drink bhang during the chalhio or autumn, when it is publicly placed out in large earthen pitchers and offered for drink to whosoever asks for it by people who think it a charitable act to do so.

31. The habit of drinking bhang is easily formed. It can be broken off as easily. The moderate habit does not often fail to develop into the excessive.

32. For one kind of social custom which prompts people to encourage the drinking of bhang, please see the concluding portion of reply to question No. 30.

In Karachi, among the serai Hindu mahajuns, and the Hyderabad mahajuns, it is customary to offer bhang with one kind of sweetmeat when the panchayet is called to arrange for and permit the distribution of what is called "bhaji," present to each individual member, in connection with the celebration of marriage. *Religious.*—On Shivaratri day it is considered religious to pour over the Shiva's image a little bhang water, and it is considered desirable to drink a little bhang also, the bhang being called Shiva's buti or plant.

On such occasions, religious or social, the use is generally temperate and is not calculated to the formation of habit or prove injurious. Of course habitual excessive drunkards will indulge more largely.

33. As regards the use of bhang, opinion varies. Some consider the moderate use of bhang as beneficial; others discourage it altogether. The use of ganja and charas are generally regarded as very injurious to health as inducing languor and lassitude when intoxication ceases. Please see further reply No. 45.

34. The users of bhang will consider it a great hardship to be deprived of the facilities for its use.

Many consider it a necessary cooling drink and as conducive to digestion and encouraging appetite.

35. I think it will not be easy to stop the use of bhang. Forcible prohibition will cause serious discontent. Under a weak Government it might be fraught with political danger. Bhang consumers are not likely to take to alcoholic stimulants. On the contrary, it might be said that the use of alcohol has been displaced by the use of bhang. But habitual excessive drinkers might take to poppy shells instead.

The use of ganja or charas might be stopped without much fear of political danger, though it might cause discontent in the beginning. The users of ganja and charas will take to bhang smoking instead.

37. Charas is said to be more intoxicating than ganja.

38. The round ganja is preferred by smokers as being more intoxicating than the other kinds.

40. Yes; by the Vedanti as well as by the Unani school of native doctors bhang is used in the case of some kinds of cattle disease.

41. (*a*) Bhang is held to be a food accessory or digestive.

(*b*) All the three are said to possess staying-power. Moderate use of ganja and charas is said to create appetite.

(*c*) Antidotes against cold.

(*d*) Ganja and charas are said to be (*a*) antidotes against flatulency and enlargement of the liver.

44. (*a*) As regards charas and ganja: intoxication is followed by refreshing silence immediately after the inhalation of smoke, but it is accompanied by a sensation of heaviness in the eyes. Appetite is created in the case of moderate smokers at stated times. The effect lasts for an hour or two.

(*b*) After-effects, excessive yawning, languor, lassitude and thirst.

Want of gratification produces all the effects mentioned above under (*b*), and diarrhœa and loss of appetite.

As regards bhang: Immediate effect—mild refreshing intoxication; creation of appetite and desire to eat greasy and sweet things. The intoxication lasts for at least two or three hours according to the dose.

Want of gratification produces longing.

45. In the case of bhang, none.

In the case of ganja and charas cough, and asthma and weakness of vision are produced. The semen also is said to be injuriously affected.

46. If used in moderation, charas and ganja produce noxious effects; *á priori* the habitual excessive use would be much more injurious, although an excessive smoker of charas informs me that it has done him no harm, yet. The only evil effect mentioned by him is loss of appetite.

49. Yes. Some use bhang as an aphrodisiac. Prostitutes also use it for this purpose. The use of ganja and charas tend to produce impotence bhang does not.

56. On Shivaratri day, the bhang prepared for offering to Shiva and styled *panchratna* is admixtured with dhatura seed, and the preparation is partaken of by fakirs.

58. The present system, which confers a monopoly of sale upon the Government farmer, is objectionable. Adulteration and admixtures are not avoidable. Old and deteriorated bhang might be mixed with good stuff. Old charas is not unfrequently mixed with oil of bhang seed to give it freshness. New ganja is similarly mixed with old ganja. Such adulterations are said to be injurious; but at any rate they are unfair to the purchaser, although unavoidable under the present system.

62. Desirable to control it further, so as to render the admixture of the produce of the male plant, which is said to cause giddiness, impossible or difficult.

69. Local opinion is not consulted. It is very desirable to consult it before a shop is allowed to be opened in any locality.

---

15. *Evidence of* Brigade-Surgeon-Lieutenant-Colonel G. Bainbridge, *Civil Surgeon, Karachi.*

1. I have been in Civil Medical employment under the Bombay Government for twenty-six years, mainly as a Civil Surgeon. I have not an exact knowledge of the drugs or of the different effects of the use of each form. But I am acquainted with their general properties.

2. Yes; bhang, charas, ganja. I am not acquainted with the varieties of the latter.

19. I believe that they are mainly smoked.

23. I cannot say.

28. I do not know.

29. I understand that opium and dhatura are exceptionally mixed with hemp drugs. I do not know the preparations.

30. Bhang is openly drunk by many people, especially in hot weather and by labourers. It is reported as cooling and slightly stimulant when taken in a weak infusion. It is mainly used by men; and I do not know of its consumption by women or children. The other drugs are used in more or less solitude and secrecy.

31. The habit seems to be easily formed. Bhang may be used occasionally or at certain seasons without the development of a habit; those who take ganja and charas are usually habitual consumers. The habitual use of all these preparations seems difficult to break off, and liable to become excessive.

32. One or more of the preparations—chiefly bhang—are commonly taken by Hindus of several castes at certain festivals. As a general rule their use appears to be temperate.

36, 37, 39 and 40. I do not know.

41. As regards occasional use—

(*a*) and (*b*) Yes.

(*c*) and (*d*) I cannot say.

42. I doubt whether the moderate habitual use of any of the preparations of hemp is harmless.

44. I believe that the immediate effects of moderate use are—

(1) exhilaration of spirits and of the mental faculties;

(2) increased power of endurance of labour and fatigue;

(3) increase of appetite;

(4) more or lessi ntoxication. In this acute intoxication the mental state is often at first good-humoured, but is more often exalted, noisy, boastful or quarrelsome, with a tendency to insolence and to reckless violence. There is no unsteadiness of gait, and but seldom stupor or coma. Muscular power seems to be increased; but the controlling power of the higher centres becomes reduced or abolished.

(5) sleep;

(6) the effects are of short duration;

(7) there are no appreciable after-effects;

(8) it is not followed by uneasiness or longing for repetition in a marked degree.

45. I have no evidence; but I should say that the habitual moderate use of any of these drugs is harmful.

46. I have no data which enable me to distinguish between moderate and excessive habitual use of any of the preparations of this drug, or between their respective effects. My remarks apply to the use of any of the preparations which, I believe, to have similar effects in varying degrees.

It causes emaciation and debility.

It causes chronic bronchitis and emphysema of the lungs, resulting in an asthmatic condition.

It causes at first hyperœmia of the conjunctivæ, which later assume a dusky or yellowish hue, and lividity of the lips and complexion.

I believe that it impairs the moral sense, and induces laziness and immorality.

It produces insanity, which is at first of a maniacal type and temporary, but may become permanent and end in dementia.

The symptoms may certainly be reinduced on resumption of the drug.

I think that the mania differs from the ordinary non-toxic type—

(*a*) in the absence of fixed delusions;

(*b*) the occasional presence of cataleptic symptoms.

(*c*) or of automatic cerebrospinal action;

(*d*) in the great frequency or early appearance of mental and moral degradation.

The mania due to hemp resembles, I think, that of general paralysis of the insane—

(*a*) in the absence of fixed delusions;

(*b*) the exaltation of ideas.

But differs from it to the best of my belief—

(*a*) in the occasional occurrence of cataleptic symptoms;

(*b*) in the occurrence of automatic cerebrospinal action;

(*c*) in the absence of paralysis or epilepsy.

That the insanity is not due to alcohol is, I think, proved—

(*a*) by the extreme rarity of delirium tremens among the insanes of this country or the general population, or of tremors or other symptoms of chronic alcoholism;

(*b*) the infrequency among the insanes of visceral lesions attributable to alcohol;

(*c*) the rarity of a history among them of alcoholic intoxication;

(*d*) the frequency of rapid recovery in confinement without ill-effects from deprivation of all intoxicants;

(*e*) the absence of craving for alcohol;

(*f*) by the character of the mania which displays either greater aggressiveness or greater moral and mental degradation. It is never of a good-humoured form.

The theory that the insanity of India is mainly due to hemp drugs is supported by—

(*a*) the known prevalence of their use;

(*b*) the statements of patients themselves;

(*c*) or of their relatives or friends;

(*d*) the absence of other adequate causes;

(*e*) the correspondence between some of the symptoms and the known effects of acute intoxication by the drug.

The emaciation and debility, chronic bronchitis and pulmonary emphysema are commonly observed in persons known to have used the drugs habitually. I state this from frequent clinical observation.

As instances of automatic action under the influence of hemp drugs, I mention the following, which I believe were cases of hemp intoxication:—

(*a*) Some years ago when in Bombay my coachman drove me daily to and from the hospital by the direct road. On one occasion without any reason, he went by a circuitous route. He was quite unaware of his mistake until it was pointed out to him, yet had made no other errors in driving. He had a vacant, stupid appearance, but no symptoms of alcoholic intoxication.

(*b*) Two years ago in Karachi when leaving my house one evening in a hired carriage, the coachman began driving round the compound in a circle. He was quiet, but evidently intoxicated, though apparently not with alcohol. I suggest this also as a case of hemp intoxication.

(*c*) Extreme intoxication with a cataleptic condition.

Sobha Choitra, mendicant, aged 24; certificate of lunacy, dated 3rd June 1892. When admitted into hospital on the 23rd May 1892, appeared quite insensible, and when his arm was raised, kept it rigidly fixed in that position. He struggled and resisted on the use of the stomach pump and attempts to give emetics.

Moderate intoxication. I have observed two 'Pardesi' gardeners in my employment when they were clearly in a state of intoxication which was not alcoholic and, in my opinion, was due to hemp drugs. The most notable signs were: noisy excitement, loquacity, volubility and boastfulness, with elated appearance and insolent manner; great accession of exaggerated and misdirected energy in work, absence of the signs of alcoholic intoxication, such as inco-ordination of gait and speech and spirituous odour.

I attach a statement showing the causes assigned for the insanity in the cases of 83 lunatics sent to the Hyderabad or Colaba Lunatic Asylums from the Civil Hospital, Karachi, during the past ten years.

In only 17 of these was the mental alienation formally ascribed to the use of hemp drugs.

In only 5 out of these 17 cases, did the patient or his relatives acknowledge to indulgence in the drugs. In one other (Sobha Choitra above mentioned) there was what I consider good symptomatic evidence of hemp intoxication.

In four of the five instances above named, it was stated that the patient also used opium or alcohol, or both.

It is, I think, significant that in only 3 of these 83 cases was the insanity attributed to alcohol alone, and in only 3 others to alcohol, opium and hemp combined.

I consider it fair to assume that a considerable number of the 39 cases under the head "cause unknown" were due to hemp drugs. But in all cases good proof of the indulgence is very difficult to obtain; and the cause can often only be guessed at from the known habits of the classes chiefly affected, the absence of other causes and the general history and symptoms of the mental malady.

47 to 50. I do not know.

56 and 57. I do not know.

In conclusion, I think that it is generally acknowledged that Indian hemp is a very baneful drug; but that there is a want of exact information regarding the extent and methods of its use and as to its effects.

Appendix to Dr. Bainbridge's evidence.

PARTICULARS OF LUNATICS CERTIFIED AND SENT TO A LUNATIC ASYLUM FROM THE CIVIL HOSPITAL, KARACHI, FROM THE YEAR 1883 TO OCTOBER 1893.

No.	Supposed cause.	Number of cases.			Total cases.	Occupation.								
		H.	M.	Ch.		Mendicants.	Shop-keepers.	Labourers.	Cultivators.	Miscellaneous.	Unknown.	Married.	Single.	Unknown.
1	Alcoholic intemperance . .	1	1	1	3	...	...	1	...	2 cooks	...	1	2	...
2	Indulgence in hemp drugs .	9	8	...	17	8	1	1	...	7	...	2	2	13
3	Ditto opium . .	1F.	...	...	1	1	...	...	...	...	...	...	...	1
4	Ditto ganja and opium	...	1	...	1	...	...	...	...	1 butler	...	...	...	1
5	Ditto alcohol, hemp and opium.	3	...	...	3	2	...	...	...	1 carpenter	...	1	1	1
6	Ditto narcotics . .	1	1	...	2	...	...	...	...	1 cook, 1 baker	...	...	...	2
7	Fanaticism and religious excitement . . .	...	2	...	2	1	...	...	...	1	...	1	1	...
8	Mental disappointment . .	1	2	2	5	1	...	1	...	3	...	2	...	3
9	Climate	...	1F.	...	1	...	...	...	...	1 wife of tailor.	...	1	...	...
10	Congenital	1	4	...	5	...	1	1	...	3	...	...	5	...
11	Hereditary	...	2	2	4	1	...	...	1	2	...	1 widow	...	3
12	Cause unknown . . .	8	28	3	39	9	...	5	...	11	14	5	10	24
		25	50	8	83	23	2	9	1	34	14	14	21	48

16. *Evidence of* BRIGADE-SURGEON-LIEUTENANT-COLONEL J. F. KEITH, *Superintendent, Lunatic Asylum, Hyderabad, Sind.*

1. I have been a resident in Sind for over fourteen years, and Superintendent of the Lunatic Asylum for over five years.

2. Yes. They are known in this province as bhang, ganja and charas.

19. Ganja and charas are used only for smoking as far as I can make out in Sind.

23. Bhang is never used for smoking in Sind as far as I know.

28. Habitual *moderate* consumers: *minimum*—

Bhang—½ tola=¼ anna.
Ganja—¼ tola=½ „
Charas—⅛ tola=¾ „

Habitual *moderate* consumers: *maximum*—

Bhang—1 tola=½ anna.
Ganja—½ tola=1 „
Charas—¼ tola=1½ „

Habitual *excessive* consumers: *minimum*—

Bhang—2 tolas=1 anna.
Ganja—1 tola=2 annas.
Charas—⅓ tola=3 „

Habitual *excessive* consumers: *maximum*—

Bhang—5 tolas=2½ annas.
Ganja—2 tolas=4 „
Charas—1 tola=6 „

29. Bhang, more especially amongst the poor, is ordinarily drunk without any admixture. None of the drugs mentioned (*viz.*, dhatura, etc.) are ever, to my knowledge, mixed with bhang, ganja and charas except tobacco, which is always mixed with ganja and charas: that is to say, that in the preparation of ganja and charas for the *chillum*, tobacco is invariably mixed with them. The object of the tobacco being in both cases to keep it going for some time, to prevent its rapid consumption, and retard or slow down the narcotic effects. If a large volume of smoke composed solely of ganja or charas is inhaled, the intoxicating effects are almost instantaneous; whereas, when mixed with tobacco, the narcotic effects are not so rapid and violent.

Bhang massala as sold in the bazaar consists of the following ingredients:—Aniseeds, rose buds, kasni, almonds, cardamoms, black pepper, poppy seeds and sugar. When privately prepared, milk is, as a rule, added.

30. Reliable statistics cannot be obtained of the extent of consumption of any of these drugs either in solitude or company. But, speaking generally, it is much more or principally practised in company; and this for two special reasons: (1) it is more economic in company than in solitude; for instance, the waste in the preparation of bhang would be almost as much for one as for a dozen. This also holds good with ganja and charas; for in smoking the *chillum* a person can take only one or two long inhalations at a time; when he is recovering his breath, the *chillum* circulates amongst the others instead of burning away in the meantime. (2) It is much more agreeable in company. I have watched them sitting round a fire when the bhang, ganja and charas, etc., were in process of preparation, the hooka circulating, all kinds of stories being told, songs sung and the sircar and respectable people generally abused in anticipation of the general debauch. This is confirmed generally by the following translation usually sung on these occasions:—

Chillum is the loved of God.
Every one must honour it.
It goes round in company
As Krishna amongst the milkmaids.

It is confined generally to the male sex. Very few respectable persons indulge in ganja and charas, or the excessive use of bhang; and I think it is not far from the truth to state that few or no respectable Sindhis, women or children, indulge in any of these drugs. The period the moderate use of bhang is commenced is amongst men after 40.

31. Nobody forms these habits alone. They are begun in imitation of the habits of companions and are formed with ascending degrees of difficulty.

The habit of drinking bhang is easily formed, as it is not disagreeable, but one must inure oneself to the habit of ganja, and especially to charas, as their fumes are strong and disagreeable, and at first it is almost impossible for the novice to inhale their fumes into the lungs, especially charas; at first on entering the larynx it produces a violent fit of coughing, and even amongst *mawalis* a full inhalation will sometimes end in a paroxysm of coughing. A man with powerful lungs will learn the habit sooner, therefore, than one with originally delicate lungs; or than those whose lungs are irritable or are debilitated by disease. I know a *mawali* who cannot on this account inhale ganja or charas. As a rule, for a healthy man it takes forty days of persistent effort to acquire the habit.

It is the society that is difficult to break off. Divorce a man from the society and occupy his time with different motives and objects, and the habit of meeting his companions and the mere craving for the stimulant soon passes away. The practice of these habits is formed and continued in company, where the spirit of rivalry as to who will stand the most of these drugs is always present more or less amongst differently constituted individuals.

There is no general tendency of the moderate towards the excessive use; for all Sindhis use bhang in moderate quantities; but the proportion of *mawalis* to the population would, I should think, be a very small one.

32. Not that I know of. There is a holiday called Shivaratri in honour of the marriage of the god Shiva on which the Pardeshi and Sindhi Hindu fakirs who are his followers use these drugs in excessive quantities. But the Hindu population in Sindh do not indulge to excess on this day. They prepare a ling of Shiva; if they have not got one of stone, they make one of clay to which they present flowers and wash it with bhang, repeating the following prayer: "Oh God, accept this bhang from thy faithful followers," and then they drink of the bhang. Those who are smokers of ganja and charas (*viz.*, *mawalis*) indulge always to intoxication on this day.

36. No. But many respectable Hindu Sindhis take a glass of brandy or whisky or country liquor before supper, from the idea that it excites their appetite, and in imitation of the ruling race, as they imitate the cut of their clothes, etc.

37. The difference is purely of degree and not of kind; bhang is the weakest and charas the strongest. Charas produces immediate intoxication and goes off sooner; bhang, on the other hand, produces intoxication, but is much slower in its action; ganja may be said to be midway between the two.

39. The answer to this question is implied in the answers already given. Bhang is used moderately to stimulate the appetite and as a cooling drink. In a general debauch bhang forms, so to speak, the first course, and is drunk to the degree of excitement. Ganja forming the second course, advances this degree to a state of intoxication. Charas forms the "last straw," making them either temporarily insensible or raving mad, a condition which sometimes, under the continued excessive use of these drugs, becomes permanent, especially in cases where the nervous system is originally weak or predisposed from hereditary weakness to insanity.

40. Bhang alone is prescribed in Sind, as a rule, to men over 40, as a stimulant to the appetite, refreshing drink and gently soporific. The "Vet." here uses the extract with carbonate of ammonia and belladonna for cough amongst horses. There was a prisoner admitted into the jail with profuse salivation; the usual remedies had no effect on him. He asked me to give him a little bhang; I did so and it acted like a charm, curing his salivation almost at once, which cure remains permanent.

41. (*a*) Only bhang is believed to be disgestive and refreshing in its moderate use.

(*b*) Never.

(*c*) and (*d*) No.

42. Here it will be well to define what is meant by the moderate use of these drugs. It means in all cases in Sind short of intoxication. It is difficult with ganja and charas to stop here (short of intoxication), as a full inhalation is quite enough to cause temporary giddiness in the strongest. No respectable Sindhi would ever entertain the idea of indulging moderately in ganja and charas. The idea prevalent in Sind is that the use of ganja and charas "consumes the body;" it is called "but jo khát" (the body's house-breaker).

44. It has been already pointed out that the consumption of bhang is habitually used in moderation not approaching to intoxication amongst all classes. It is said to be refreshing and as an appetiser; it cannot, therefore, allay hunger. As an appetiser (which it is generally believed to be) it might cause a little more food to be taken than necessary, which would tend theoretically to cause drowsiness and would, therefore, be considered as a soporific. The secondary effects on digestion might last therefore a considerable time. There is no physiological data concerning the length of time bhang remains in the system. The popular belief is two or three hours. The gratification is more the indulgence of the habit of having something at a given time of the day to break the monotony of idleness. Ganja and charas produce very rapid intoxication; but, as has been pointed out, none but *mawalis* indulge in ganja and charas; and they always indulge with a view to intoxication. If the old man does not get his bhang at the usual time, he feels the longing for it produced by habit, and is uneasy and perhaps fretful if he is disappointed, as he believes his night will be spoiled, fretfulness being a means itself of rousing him up, and not the want of the bhang.

45. It has been several times pointed out that in Sind the moderate use of bhang, as far as effecting the integration or disintegration of the animal tissues is concerned, does neither good nor harm. It is merely a sort of pastime for the idle. Ganja and charas are always used by *mawalis* with a view to intoxication, which always does

harm physically, mentally and morally. A *mawali* is a man no one relies on. If he does, he will certainly repent his folly.

To the other questions under this head a general negative reply may be given.

Mental anxiety or brain disease (the latter being a rather vague term) is never treated in Sind by resort to bhang, ganja and charas; it is usually liquor, either Native or European, which is resorted to as the Hindustani and Persian quotations show:—

Shirab shouk pinese hama dookh dard jati hain.

Labalab bekun dam bedam nosh kun.

Ghumai hardo alim framosh kun.

46. *Physical aspects.*—A *mawali* is never, as a rule, a stout well-to-do-looking individual; on the contrary, he is a person of a lean, skinny, wrinkled, mangy, nervous appearance. In Sind when respectable men meet, they embrace and ask one another are you getting stout, fat, strong, healthy, and content? The *mawali* is just the opposite of all these qualities; although his lingual expressions are the same, to him they can have no meaning. This wrinkled or dried-up state of the constitution shows that nutrition is profoundly changed. This arises from the excessive metabolism of the nervous elements from constant stimulation. To a healthy man engaged in the struggle of existence the daily disturbances to his nervous system arising from his environment are usually sufficient to keep up the equilibrium between assimilation and dis-assimilation; but the constitution of the *mawali* has, in addition, to sustain the excessive waste that goes on from over-stimulation of his nervous system by hemp drugs. A gradual deterioration, therefore, of his nervous system takes place, not only from excessive stimulation, but from want of sleep; for he rarely sleeps unless during the influence of intoxication, which lasts from two to three hours. The primary effect on the nervous system would be accompanied by a corresponding deterioration of the muscular system associated by an impairment of the assimilative power of the cellular elements of the nervous and muscular tissues, and also of the glandular elements. The general normal expenditure being thus reduced, appetite would be impaired, and dysentery or any other disease might arise from exhaustion. Bronchitis and asthma might arise from the irritation to which the bronchial tubes are continually exposed from the inhalation of the drug. Laziness would be the consequence, therefore, of the general dyscrasia just described.

From what has been above mentioned, and from the fact that mental and moral phenomena are now believed by recent authorities on the subject to be subjective states, produced by the action of external incident forces upon the cerebrospinal nervous system, the inner or subjective sides of objective phenomena corresponding to co-existences, and sequences in space and time; then, *a priori*, deterioration of the nervous system would necessarily produce alterations in the degrees of intensity in the manifestations of mental and moral phenomena generally, congruous with that mentioned above as manifested by the physiological deterioration of general nutrition characteristic of the *mawali*, whose morals are, as a rule, as mangy as his appearance. It may be said to impair, while it also excites, the intellect according to the degree of administration and stage of the periodic action of the drug; but the general result is, not so much a weakening of the acuteness of the intellect, as a general immorality and debauchery; and it is astonishing how long these people will go on living on the borders of crime, and contrive to keep clear of the Magistrate and the police. But the general result is, generally speaking, the Jail or the Lunatic Asylum, or early cremation, or an early grave.

In cases before the Commission, it has formed, as a rule, the *exciting* cause. In the history of the admissions into the asylum for the year 1892, it will be seen that the excessive indulgence in the use of hemp drugs formed the *exciting* causes, for no hereditary insanity could be traced in any of the cases which Mr. Thattumal and I examined.

The type may be generally classified as mania, and as characterised by an exaltation or liveliness of manner, and a restlessness as would be seen in one in a state of semi-intoxication, accompanied by incoherence, want of the power of co-ordination of the relations of the ideas of space or time, or of the relations of the various memories developed by the visual, tactual and acoustic sensations; impairment or the complete loss of the sense of shame (a good indicator of the moral state) manifested by walking about naked; defœcating and micturating whenever and wherever nature prompts them; and talking to some imaginary individual or muttering to themselves, and having a quiet laugh or chuckle when alone. This is a summary of the general features of the type of the cases admitted in 1892, and from observing *mawalis* going through the various stages of intoxication till unconsciousness and sleep supervene, I could not, somehow, help thinking that in cases produced by the excessive use of hemp drugs, the type of insanity and its modifications simulated or were to a certain extent identical with the latter stages of intoxication in the *mawali*. The cluster of symptoms accompanying the various stages of intoxication are not to be traced as co-existing permanently in the same individual, although they may appear during the time insanity lasts, but in a number of lunatics.

A short analysis of the cases before the Commission will show the grounds on which this parallelism has been traced. As a preamble, it may be remarked that the co-ordination of the ideational centres—visual, tactual, acoustic—and the intelligent expression of ideas in articulate language form the highest effort which a human being is capable of. During the period of intoxication, when the ganja is circulating amongst a circle of *mawalis*, one would think that all their wits were leaving them, crowded out as it were by over-stimulation; and it is astonishing how infectious this hilarity and outflow of wit and nonsense become to the calm observer. But as intoxication proceeds, or when the equilibrium between waste and repair is suspended by the slow poisoning of the blood circulating round the grey matter of the convolutions of the brain; when semiptosis and partial congestion of the conjunctiva take place, co-ordination of the ideas begins to fail with articulate language. The mouth seems drier, more effort is required to keep up the excitement; the voice becomes huskier; more lung pressure is necessary; the period of co-ordination is past; a sort of amnesia supervenes; language becomes automatic ribaldry and slang. When the charas begins to circulate, they do not any longer all speak together, some are silent and have had enough, and more than they are able to carry; others continue till ultimately silence and sleep supervene; their state is temporarily similar to an animal

with its hemispheres removed. Sarandas Anandas may be taken as an example of the exalted incoherent period. When he was last admitted into the asylum, he went on during his examination in the most extraordinary way, until the veins of his neck were swollen, his face blue, and his mouth dry from the pressure on his lungs, uttering a perfect Babel of automatic phrases in the shape of prayers, denunciations, and threats; frowning, laughing, crying, and going through all the varied gesticulations, and intonations almost in the same breath in a perfect whirlwind of incoherence and inco-ordination of ideas. Now he is quite sane.

Soba, No. 5, may be taken as an example of the other extreme of the period of aphasia, or perhaps a better diagnosis would be amnesia. When he was admitted into the asylum, he could not speak a word of any known language. On the 1st October 1893, on his examination, it was found that he could now speak Hindustani. But he had no ideas of space or time. With difficulty he said he came from Madanpur, and he knew how to prepare ganja and smoke it; but beyond a few automatic answers to every-day questions, his mind is a complete blank. Perfect destruction of brain tissue could not have more effectually removed all traces of the education, ideas and language constructed by a life-time of human intercourse. He may be said to be in the permanent position of the *mawali* who has figuratively fallen "beside his chair." It need scarcely be mentioned that between these two extremes there is every gradation depending upon the age, the physical, mental and moral characteristics of the individual, and the length of time and extent of indulgence in the habit.

This parallelism kept for some time possession of my mind until Makka, wife of Fazul, a young woman about 18, was admitted on the 12th June 1893. The police took her husband away from her, charged him with theft, and he was imprisoned for 12 months. This so preyed upon her mind that she lost her reason; and she was sent to the lunatic asylum. On her admission she behaved exactly like those suffering from insanity from the excessive use of hemp drugs. No absolute diagnostic feature could be shown from the most careful examination of her symptoms as indicating a difference between the two types of insanity but the history of the cause. But it may also assume the morose melancholic type as in Metho, No. 6.

The indulgence in hemp drugs may be said to be both temporary or permanent. Jehangir *alias* Parashram may be cited as an example of the permanent effect of the drug on the brain. Mattadin, No. 8, and Bux Ali, No. 10, may be shown as having suffered from its temporary effects. The symptoms may be re-induced after liberation from restraint, as in the case of Metho, No. 6, or Sarandas Anandas, who has been four times in the asylum suffering from the effects of hemp drugs.

There are no typical symptoms. Although I have tried to draw a parellel between intoxication in the sane and insanity produced by hemp drugs, I do not think there is a great difference between intoxication produced by the latter and wine or spirituous liquors drunk to excess. Moreover, anything which would injuriously affect the grey matter of the convolutions of the brain in a similar way (such as grief, loss of honour or property, or fear; or ureemia, sapticeemia, etc.) would, *á priori*, produce like results.

Insanes who have no recorded ganja history confess to the use of the drug if they know what they are talking about.

Persons deficient in self-control through weakened intellect, no matter from what cause, especially if they have no friends to keep them straight, as a rule, gravitate towards the company of the idle and vicious, *viz.*, the *mawalis*.

47. No.

48. The idle and the vicious gravitate towards the society of *mawalis*, and they are the dregs of society, the lowest classes in physical, mental, and consequently in moral development; the idea, therefore, that these people would have highly developed offspring is incongruous. They propagate, on the contrary, recruits for our jails and lunatic assylums—institutions which the evolution of altruistic ideas has now rendered indispensable.

49. Yes; I do not think that many Sindhis (not *mawali*) use this drug to the degree of intoxication with this view. I am constantly being asked by Sindhis for strengthening medicine; and I have known Sindhis come long distances with the view of obtaining medicine to rejuvenate their sexual energies. The inference is that if bhang, ganja and charas were used moderately for this purpose, there is no general belief in its efficacy. I have answered the latter question in discussing question No. 46. There is no reliable data; there is only the popular idea, and that is, that it makes one impotent.

50. Bhang is used by men as it is supposed to have an aphrodisiac tendency, believing that it both excites and prolongs the act. Ganja and charas, on the other hand, is believed to excite, but to shorten the act. But this is only the popular idea. There is to my knowledge no scientific data on this subject.

56. They decrease the intensity of the drug, prolong the duration, and render mellow its effect both in moderation and in excess. Dhatura, etc., are never mixed with hemp drugs in this province to any extent. But sight must not be lost of the fact that tobacco is all along smoked during the preparation of the bhang; and that it is mixed with both the ganja and charas, which are never, as a rule, smoked without it.

57. Ganja and charas are neither eaten nor drunk as far as I know.

In conclusion, it is a fact that more bhang is consumed in Shikarpur, Sukkur, etc., than in Hyderabad, and in the latter more than in Karachi; or, generally speaking, more in Upper than in Lower Sind, which is a tacit declaration of the fact that Upper being hotter than Lower Sind, it is more largely used as a refreshing drink. The name of the drink of which bhang is the principal ingredient is called thadul, from thad (cold). (See Abkari Report for Bombay Presidency.)

Revised answer to Question 46 submitted by Dr. Keith.

46. Does the habitual *excessive* use of any of these drugs produce any noxious effects—physical, mental or moral?

Always produces noxious effects—physical, mental and moral, as reference to hemp drugs cases admitted in 1892 will show.

Does it impair the constitution in any way?

Yes.

Does it injure the digestion or cause loss of appetite?

Yes.

Does it cause dysentery, bronchitis or asthma?

There is no reliable data. Hemp drugs patients in this asylum do not seem to suffer more than the others from these affections.

Does it impair the moral sense or induce laziness or habits of immorality or debauchery?

Yes.

Does it deaden the intellect or produce insanity?

Yes.

In cases known to you when it has produced insanity, has it appeared to you to be merely the *exciting* as distinguished from the *predisposing* cause of the insanity?

The exciting cause.

If it produces insanity, then of what type, and is it temporary or permanent?

The types are mania or melancholia, and they may be both temporary and permanent.

If temporary, may the symptoms be reinduced by the use of the drug after liberation from restraint?

Yes.

Are there any typical symptoms?

Not toxical insanity.

Do insanes who have no recorded ganja history confess to the use of the drug.

Yes.

In such cases of the alleged connection between insanity and the use of hemp as are known to you, are you of opinion that the use of the drug by persons suffering from mental anxiety or brain disease to obtain relief has been sufficiently considered in explaining that connection? And do you think there is any evidence to indicate that insanity may often tend to indulgence in the use of hemp drugs by a person who is deficient in self-control through weakened intellect?

Answered under 45.

Yes.

Give an account under each of these points of any cases with which you are acquainted.

A full account of each case admitted in 1892 has been supplied.

Oral evidence.

Question 1.—I have been in the service for twenty-five years. I have passed fourteen years in Sind, and fifteen and a half years in civil employ. I have been five years in charge of the Lunatic Asylum, Hyderabad. I have had no special experience in insanity besides that, except that I was an official visitor for five or six years of a lunatic asylum which formerly existed at Larkana. I have been Superintendent of the Jail at Hyderabad and Shikarpur for a total period of eleven years.

Question 39.—A debauch is begun by drinking bhang, and then ganja and charas follow in succession. This is the course of an ordinary debauch among the *mawalis*, a name applied to habitual drunkards. I have known this to take place in Hyderabad, but have no knowledge of it elsewhere. Ganja as distinguished from bhang and charas is in use in Hyderabad. Some take ganja, who cannot stand charas. The debauch described above is practised by the *mawalis*. In my written answers I have been careful to distinguish their habits from those of respectable people who use the drugs. Tobacco forms a running accompaniment through the whole debauch. Some take a small pill of opium before drinking the bhang. I have seen my own *ghorawala* go through the courses I have described, and I have seen it at the *tikanas*. There are very few *mawalis* in Hyderabad. I cannot say how many. They are mostly mendicants. The *mawalis* are a well-marked class by themselves recruited from all castes and religions. They are both Hindu and Muhammadan, and these two classes do not amalgamate. They have fakirs among them and bairagis and sadhus, and the bad characters make up the complement. Men out of work are sometimes *mawalis*. African Seedees are to be found among them in considerable number. The *mawalis* are known all over Sind. They are not confined to Hyderabad. The name is a term of reproach. A man who works hard for a week, and then spends his wages in such debauchery as I have described, may be called a *mawali*. I might describe the *mawalis* as utterly abandoned blackguards. I have seen parties of them as large as one dozen sitting together. My *ghorawala* is a Shekh, *i. e.*, a Hindu converted to Muhammadanism, and his immediate friends are of the same class. The *mawalis* have a shabby, ill-conditioned look. At the meetings they would sit in a circle round a fire if it were cold weather. The *chillum* passes round, and they talk, chatter and laugh, and are amusing. After a while they become intoxicated, their conversation becomes irrelevant, and they all talk together. Some drop off to sleep and some stagger away. Co-ordination of the lower extremities is partially lost. The symptoms are hardly distinguishable from those of alcohol. There is in the earlier stages a similar exaltation to that caused by alcohol. The state of excitement caused by alcohol is not distinguishable from the same state caused by bhang. The remarks found in the asylum case book, that people were under the influence of a narcotic, refer to the drowsy, sleepy, wandering stage of intoxication, a state of inco-ordination of the physical functions. That is what the symptoms most resemble, and it is the best way I can describe them.

Question 45.—The insanes are brought to the hospital by their relations like other patients. I, as Civil Surgeon, have to collect all information necessary for the admission of the lunatic to the asylum, and I not only fill up the certificate, but the whole of the form printed on the back of the certificate. I get the information from the relations and friends. Some insanes are brought by the police without any relations. In that case the information is got from the police. When the police pick up an insane in the bazar, they cannot know anything about him, unless they can discover his relations in the neighbourhood. Sometimes bairagis and people of that class are brought up without any information having been gathered about them. In all other cases the relations come to the hospital voluntarily with the insane or are brought by the police. I think that in the majority of cases I get no information as to cause of insanity. The mendicants form the great majority of cases, and it is difficult to get any information about them. The insanes in the asylum may be ranged under two classes, the majority about whom no information can be got, and the minority about whom I have made enquiry from their friends. In the case of any insane man about whom there is no history, it is impossible to state

the cause of insanity. In the majority of cases therefore the cause is entered as unknown. The only ground, as far as I can remember, on which I would enter cause would be the information of friends or the statement of the insane after he had recovered his wits. If no other cause of insanity was given, and the friends told me that the patient consumed hemp, or he himself admitted the habit, I should certainly enter hemp as the cause. I think it is only the excessive use and not the moderate use of hemp which may, and often does, cause insanity; and I have not, as Superintendent of the Asylum, hitherto distinguished between the moderate and excessive use in these enquiries, because that information has not been called for, and because for my purposes as Civil Surgeon I should accept the statement that the hemp was used as implying the excessive habit.

In regard to case No. 7 of the asylum cases of 1892, after having read question and answer No. 4 of the statement of Jatanand, the lunatic's father, I should still hold to the view that bhang was the cause of insanity, because I should not believe that the use was moderate, *i.e.*, to say, having this evidence only and no other history of cause, I should be inclined to consider bhang the cause.

In regard to case No. 6 of the asylum cases of 1892, I see that the evidence collected at the recent enquiry is clearly to the effect that the insane did not use the drugs; but in view of the fact that in the asylum the insane showed himself quite familiar with the mode of preparation of the drug, and actually smoked it in my presence, I reject the evidence and accept the insane's statement, though he is still a lunatic and clearly incorrect in his arithmetic in regard to the quantities of the drug he used to consume, and attribute the case to hemp drugs.

Hemp-drug insanity is diagnosed from the cause. There is no type of such insanity. The hemp drug may be the predisposing or exciting cause of insanity. I should not be disposed to say generally whether the predisposing or the exciting cause was the more important. Heredity is the most important predisposing cause. If I had the history of heredity and the evidence of the hemp-drug habit, I should record it; and it would appear in my returns as a hemp-drug case. Heredity is the predisposing, and hemp drugs the exciting, cause in such a case, but hemp drugs only would appear in my returns. If I had a history of the hemp-drug habit and grief, I should record it as a case of toxic insanity.

In case No. 11 of the asylum cases of 1892, regarding which a further enquiry was made, accepting as true the statement of Ailmal, as recorded by me, I should find it difficult to say which of the two causes, hemp drugs and grief, was to be regarded as the more potent. I should consider hemp drugs as the predisposing, and grief as the exciting, cause. I should record the case as one of toxic insanity.

When the hemp-drug habit is admitted, I see no reason to seek for any other cause.

---

17. *Evidence of* Surgeon-Major W. A. Corkery, *Civil Surgeon, Sukkur.*

1. Since receipt of this report, I have been conversing with and interviewing some of the natives who are addicted to the use of these drugs, and my evidence is based on what I could gather from them.

2. The definitions of the three plants correspond with those enumerated in the margin, *viz.*, bhang, charas, and ganja; but only one variety of ganja seems to be known in this town.

19. Ganja and charas are used only for smoking in this district. At times they are mixed with tobacco.

23. Bhang is never smoked by Sindhis. Travelling fakirs and banias from Hindustan smoke it, but very rarely. Travellers also occasionally chew it and drink water over it. This is done only occasionally, when the usual pot and mash stick are not available on a journey.

28. *Charas.*—Moderate consumers use about a pice worth per diem, whilst excessive consumers about an anna's worth or more.

Ganja.—Moderate consumers use about a pice worth per diem, while excessive consumers about an anna's worth or more.

Bhang.—Moderate consumers about one pice worth. Excessive consumers about an anna's worth daily, the more habitual ones consuming at times two annas per diem.

29. The ingredients mixed with bhang sometimes are—

Aniseed, Cinnamon, Cardamom, Coriander seed } for cooling;

and

Sugar in the form of pattassa. } for sweetening.

No preparation known as bhang massala sold in these parts.

30. Charas and ganja are always indulged in in company, as a pice worth will sometimes serve two or more persons.

Bhang is also, as a rule, drunk in company; very seldom is it drunk in solitude. Respectable women sometimes drink bhang, but not charas or ganja. Prostitutes, besides drinking bhang, smoke charas. Children do not smoke or drink any of these drugs.

31. If these drugs are indulged in daily, two or three weeks are sufficient to form the habit. If only occasionally used, the habit becomes grafted in one after three or four months, and, the habit once formed, is difficult to break off. There is said to be a tendency for the moderate to develop into the excessive habit in the use of these drugs where the consumers can afford to spend the extra money. In the case of habitual consumers who are poor the same quantity is said to be consumed daily, as they cannot afford to increase their daily outlay.

32. In some Muhammadan marriages bhang is served up with sweetened water, especially in the summer months. This practice is not essential, and the consumption is temperate; neither is this custom said to be likely to lead to the formation of the habit. On a few Hindu holidays, such as the Shiv Ghiri (11th of month) and Chatri (beginning of Hindu year), and on Sundays in Hindu temples, bhang is occasionally indulged in, purely as a social and not a religious custom, and is in no way compulsory.

36. Alcohol is not considered to be now used as a substitute for any hemp drug, although it is partaken of in winter, as bhang, which is a cooling mixture, is reserved for the summer months.

37. *Charas* is admitted to be the most injurious form in which hemp is consumed, and is said to bring on cough. Asthma will prove injurious to the lungs. Ganja, which is very rarely used in these parts, is said also to give rise to chest affections; but its action is much slower than that of charas. These two drugs are, as a rule, used by fakirs in Sind more than by any other class.

Bhang.—This drug indulged in moderately is said to do no harm. It is the general drink throughout Sind. Unlike alcohol, its first effect is cooling, and later on a sensation of warmth is experienced. When smoked by fakirs and jogis, as it is sometimes, its effect is more injurious than when drunk. It is not supposed to produce insanity.

40. Bhang is said to be used by hakims for piles on account of its cooling properties, for stricture and ulcers. Not used for cattle disease.

41. Bhang used in moderation is believed to be beneficial as—

(1) a digestive;

(2) alleviating fatigue, but only whilst its effects last, the reaction being great; but again it is believed that a person not indulging in these drugs is always better off than one addicted to their use;

(3) not used as a febrifuge;

(4) as an aphrodisiac.

42. Yes; harmless to a certain degree, as bhang in moderation acts as a digestive and has a cooling effect when partaken in the summer months.

44. The immediate effect of these drugs on a consumer is intoxication and a subsequent feeling of languor. They do not allay hunger, and only create an appetite in old and excessive consumers. The effects of charas and ganja are immediate and last about two hours, while those of bhang are experienced after about half or three-quarters of an hour, and last about three hours. There are no after-effects; but the want of subsequent gratification to confirmed drinkers and smokers causes depression and a craving for more, which if not satisfied creates great uneasiness.

45. The moderate use of these drugs does not produce any immediate noxious effects; but if bhang is indulged in for a considerable period, it impairs the constitution and produces emaciation. At first it acts as a digestive, but afterwards impairs it, gives rise to asthma and bronchitis, but not dysentery. It induces laziness and habits of immorality at first, and when continued for any long period, it deadens the intellect, but is never said to give rise to insanity. Indulgence in charas and ganja is said to impair the sexual organs.

46. This habitual excessive use has the same effect, but in a shorter time and to a more marked degree.

47. Neither the habitual moderate nor excessive use of any of these drugs is admitted to be hereditary or to affect the issue of consumers; but as the use of charas and ganja is said to impair the sexual organs, it is reasonable to suppose that the issue is to some extent affected.

49. Prostitutes are said to use all three of these drugs in proportion to the extent to which they have sunk in depravity. Used by prostitutes for inciting pleasurable sensations. Charas is the only one of these drugs said to cause impotence.

56. Admixture of foreign ingredients with bhang is said to weaken its intoxicating powers. These ingredients are enumerated in answer 29.

57. Ganja and charas not eaten or drunk in Sind.

In conclusion, of the three drugs, bhang is said to be the least harmful, unless regularly taken in excess.

Charas—Is the most injurious; but is not, as a rule, used by Hindus of these parts, but fakirs.

Ganja—Is not used to any great extent by either Hindus or Muhammadans.

Majum—Is a sweetmeat composed of sugar and bhang, and is sold in these parts, but to a very small extent.

---

18. *Evidence of Assistant Surgeon,* EDWARD MACKENZIE, *Manora, Karachi, Sind.*

1. An acquaintance with natives of India who were in the habit of using hemp drugs, extending over a period of twenty-five years.

2. Yes. Bhang as bhang, less commonly as sabzi and sahi. Charas as charas. Ganja as ganja.

19. Yes. Also medicinally to a slight extent for coughs, asthma, colic, etc., and no doubt forms an ingredient, like opium, mixed with spices and camphor, of the pills in favour with persons of low morals for exciting sexual desires.

23. No.

28. (*a*) From quarter to half anna per diem.

(*b*) Up to two annas per diem.

29. Bhang is sweetened and taken in liquid, mixed or unmixed, with spices. Ganja (charas less so) is smoked with tobacco. Other admixtures are not used in Sind. No, but hemp is sold as a sweetmeat under the name of majum.

30. To a very considerable extent, both in solitude and in company, equally by both sexes in Sind: in women the elderly, in men the young adults, in the former from acquired habit, in the latter for immoral purposes. I do not think the female sex partake of it to anything like the same extent in other parts of India. Hemp is not given to children.

31. (*a*) and (*b*) Yes.

(*c*) Excepting in the case of debauchees, moderation is the rule.

32. Nil.

36. Alcohol is not substituted for bhang in a person habituated to the use of the latter; but the former being at hand and getting into more general use, is partaken of more freely than before, and in this way would lessen the use of bhang, especially in the case of the rising generation, many of whom take alcohol to assimilate in habits to the European.

37. All have similar intoxicant effects, varying in intensity, ganja being more powerful and heat-

ing in its effect than bhang, and charas more so than ganja.

39. As the stronger products of hemp are smoked, smoking would seem to be the more injurious form of consumption. Of the effect of either towards producing insanity I am not in a position to give an opinion. I believe the effect of drinking or smoking in a person unaccustomed to it would be intoxication merging into frenzy.

40. Hakims have long been in the habit of prescribing it for tetanus both in man and cattle. It was also in use, as stated before, as an antispasmodic, also externally as an anodyne.

41. I do not think so. Those who are in the habit of using them put forward the plea that they increase the appetite, give staying-power under severe exertion or exposure and alleviate fatigue. They do not act beneficially in any way, not even as a febrifuge or antiperiodic.

42. I consider the use of hemp cannot be said to be harmless. The intoxication produced by it in beginners may be of so violent a character as to lead the person under its influence to the perpetration of acts of crime.

44. It is said to be refreshing and does not produce intoxication. It is said to allay hunger and to create appetite. The effect is only transient. There are no after-effects. Yes.

45. (*a*) Not perceptibly, but the tendency is towards an impairment of these faculties.

(*b*) and (*c*) Not perceptibly.

(*d*) No.

(*e*) Yes; it does induce to laziness and habits of immorality.

(*f*) As a cause of permanent insanity I am not prepared to express any opinion as I have not seen any cases. I have met with a few cases of frenzy induced by it, which might be classed under temporary insanity, but the symptoms passed off after prolonged sleep induced by medicines. The latter is more probable.

My opinion is that the habit of using hemp preparations is to be reprobated, as it is not beneficial in any way. On the other hand the first use of hemp is often accompanied by deeds of violence and those long addicted to it suffer from impairment of the physical, mental and moral powers, and evidence is to be found of its being a potent cause of permanent insanity.

46. Habitual excessive use may impair the moral sense and lead to insanity.

47. Not perceptibly.

48. The offspring of the habitual excessive consumer might be weak-minded or idiotic.

49. I believe it is by males. I am not aware that prostitutes use it. Used for sexual purpose, the habit would be more injurious. Impotence might result from it.

50. As an aphrodisiac the excessive use of these drugs would not be resorted to ordinarily.

56. Not used in the form of an admixture in Sind, nor do I think it is a common practice anywhere. Dhatura, for the commission of theft, is sometimes mixed with hemp to ensure a victim being rendered unconscious, and opium is sometimes taken with it as an aphrodisiac, but I have never heard of its being mixed with nux vomica, betel-nut or cantharides. Nux vomica may enter the bhang drink of the regular moderate consumer on account of its tonic properties.

57. They are not eaten or drunk in Sind nor have I any knowledge of their effect when eaten or drunk. I should suppose the effects would be much greater, these preparations being more active and powerful than those of bhang.

---

19. *Evidence of Assistant Surgeon*, G. M. DIXON, *Medical Officer and Superintendent, Nara Jail.*

1. I have been in Sind in charge of this jail for upwards of two years, and during this period, while the jail was in the outlying district of Thar and Parkar and Khadi in Shah Bunder subdivision, Karachi, I have come in contact with many cultivators and free labourers who use bhang (one of the products of the Indian hemp plants) in moderate doses. After the receipt of an intimation from the Assistant Commissioner in Sind selecting me a medical witness to give evidence before the Indian Hemp Drugs Commission, I have tried to obtain information regarding these drugs from some of my subordinates and some of the town population. I have also received some information from some prisoners who have been transferred to this jail from Karachi, Shikarpur, and Hyderabad districts. Such being the case, the information applies mainly to the desert districts of Sind. Besides Sind, I have been in other parts of the Bombay presidency, *viz.*, some parts of the Deccan, Conkan, and North Canara, and I have therefore added any information I possess regarding these parts of the presidency.

2. Subzi is the term used by a majority of people for the first product. The lower orders call it bhang. The high class detest to call it bhang, because bhang consumers are called bhangis, and a bhangi also means a sweeper.

Ganja.—All the varieties appear to be sold under one name, ganja.

Charas is the resin which forms the active principle of the plant.

19. Ganja and charas are, as a rule, used for smoking only. It is said that ganja and charas are eaten by a sect of religious mendicants called Aghorees or Aghorpanthees and Nangas. *Vide* answer 57.

23. Not known.

28. The question of deciding as to what is the average daily allowance per head is a very difficult one to decide, because these drugs are consumed, as a rule, in company, so that at times it appears to so happen that one individual consumes more than another, besides a good deal depends upon modes of living and the temperament of the consumers. For example, a person who is able to provide himself with a good supply of saccharine and fatty food will consume larger quantity than those who are not so favourably placed. From the enquiries I have made the following tables have been framed, showing the approximate daily allowance per head. The cost is said to vary in different districts. For instance, in Umurkote, Khipro and Sanghar talukas of Thar Parkar districts subzi sells at 2 seers (4lbs.) per rupee,

while in Hyderabad bazar at Rs. 1-4 to Rs. 1-8 per seer (2lbs.).

1.—For habitual moderate consumers.

Names of the drug.	Average allowance per day.	Cost.	Remarks.
Sabzi	1 to 2 tolas	¼ to ½ anna	NOTE.—Price varies according to the districts.
Ganja	½ tola	1 to 1½ annas	
Charas	½ dram	¾ to 1 anna	

2.—For habitual excessive consumers.

Names of drugs.	Average allowance per day.	Cost.	Remarks.
Sabzi	6 tolas	2 annas	NOTE.—Price varies in different districts.
Ganja	2 tolas	3 to 4 annas	
Charas	1½ to 2 drams	1½ to 2 annas	

29. Among the high class Hindus, a preparation called *thadal* is prepared containing a very small quantity of subzi admixed with sugarcandy, poppy seeds and some spices. The object appears to be to make it a pleasant and palatable drink. Bhang massala not known. Ganja and charas are always smoked admixed with tobacco, and the object appears to be to remove the irritative properties of the drug.

30. The consumption of these drugs is, as a rule, practised in company, in a very few instances in solitude. It is mainly confined to male sex, and the habit seems to be acquired about the time of puberty. It is not usual for children to consume any of these drugs. It is possible that children seeing their fathers taking subzi, ask for some, and the fathers just to satisfy their curiosity, give them a little.

31. The habit of consuming subzi is said to be easily formed in many cases. The habit is, as a rule, very difficult to break off. It does happen at times that moderate habit of taking subzi develops into the excessive, especially when the consumer gets into some family squabble or misfortune.

32. There does not appear to exist any social custom regarding the consumption of any of these drugs. Dr. Dymock, in his Materia Medica, says "that on festive occasions large quantities of bhang are consumed by almost all classes of Hindus." So far as I am informed, it does not appear essential for the Hindus to partake of these drugs on religious festive occasions. Perhaps some of the Hindu shastras will be able to throw some light on this point.

36. No reason to think so.

37. The effects in the case of ganja and charas are about the same; in case of charas the intoxication is brought about sooner than in case of ganja. Moderate subzi drinking increases appetite and produces mild intoxicant effect.

39. The drinking of subzi is less injurious than smoking ganja or charas, because the drug has to pass through the stomach and the liver before entering the general circulation, so that the active principle is possibly modified by the gastric and biliary secretions.

In the case of ganja and charas, combined with the nicotine of the tobacco admixed, is absorbed by the blood during the process of oxygenation of the blood in the lungs and thence conveyed to heart and the general circulation. Moderate subzi drinkers are as a rule healthy.

40. Subzi is largely used by native tabibs and hakims for medicinal purposes, as an anodyne soporific, astringent and for gonorrhœa and gleet and in many uterine affections. Charas smoking is prescribed by some to relieve asthma. Ganja smoking is given in tetanus and scorpion bite.

41. From what I have seen of the working classes in Sind and from the information I have received, I consider that moderate use of subzi (*a*) increases appetite, (*b*) gives staying-power under exertion or exposure, and alleviates fatigue, (*c*) acts as a febrifuge in malarious tracts. Almost all whom I have asked have testified to the moderate use of subzi acting as a digestive and giving them staying-power under severe exposure and alleviating fatigue. While this jail was in Thar and Parkar district in some malarious places, but very few of the surrounding free population came to be treated for fevers at this jail hospital, and among these men the moderate drinking of subzi was prevalent.

In April and May last, when my camp was at Khadi, Barogoza Bund, a malarious and out-of-the-way place in Shah Bunder subdivision of Karachi district, there were over a thousand free labourers working on the Bund, and among them there were but a few cases of fever, and no case of sunstroke, although they used to work in the sun under a temperature varying from 130° to 140°F., the temperature in the shade being about 110°F. Although I was not in direct medical charge of these free labourers, still, in order to protect the general health of my prisoners, I used to go about amongst the free labourers to find out if there was much sickness or epidemic among them, and good many of these free labourers used to take moderate quantity of subzi in the day time after finishing their work. Khadi is a small village containing about 60 fishermen, who have their temporary huts at the place during the fishing season. These people used to take subzi in moderate doses and all appeared to me to be heathy. Sunstroke and fever were almost unknown among them.

42. The query does not call for any remark, my opinion being as stated above.

44. The immediate effect of moderate dose of subzi is refreshing to the consumer, allays hunger, creates appetite, produces slight intoxication. These effects pass off in about a couple of hours without leaving any bad symptoms behind.

45. From the enquiries I have made and the information obtained, I am of opinion that moderate use of subzi does not produce any noxious effects, physical, mental or moral. Small doses of subzi are said to sharpen memory and vivify imagination.

No sufficient data to discuss the question of causation of insanity by hemp drugs. So far as I have observed, moderate doses of subzi do not lead to insanity.

47. In the sense of the hereditary taint of diseases, such as scrofula, phthisis, syphilis, etc., subzi habit does not appear to be a hereditary habit, nor in any way to affect the children of moderate consumers. Boys when they approach the age of puberty and have to work for themselves or assist their fathers in earning livelihood, take small doses of subzi; the idea being that the boys think that the drink taken by their fathers must be productive of some benefit. Girls who do household duties do not take subzi.

49. Subzi for aphrodisiacal purposes is taken in form of a sweetmeat called majum, prepared with

milk, ghee, sugar, reduced copper, silver, gold, and musk, nux vomica and opium. Not known to be so used by prostitutes.

50. Excessive use of hemp is said to lead to dropsy.

56. The effects of moderate uses of subzi are said to be very salubrious to the general constitution by the cultivators. Dhatura is said to be used for to be admixed with hemp by some thugs in some parts of Upper India.

57. Ganja and charas are said to be eaten by a sect of religious mendicants called Aghorees or Agorpanthees. They are said to live in the vicinity of Benares, the holy city of the Hindus, and in the Girnar hills in Kathiawar. Some say Aghorees eat charas prepared in human fat. Ganja and charas are also eaten by a sect called Nangas, who live somewhere in Cutch.

General remarks.—Though hemp is cultivated as a cold season annual in many parts of Western India, yet as a drug it is chiefly produced in a limited area. In North Canara it is but sparingly grown. In the Deccan it is also grown to a small extent in rich black soil. It is largely grown in Sind. It is sown in June or July, and thrives remarkably when watered and manured, and is ready for cutting in December. In North Canara in the Deccan Concan the fibre of this hemp is not extracted for economic purposes.

Dr. Stocks on the subject of Indian Hemp in 1848 wrote:—"The plant grows well in Sind, and if it should be found advantageous, politically or financially, to grow hemp for its fibre, then Sind would be a very proper climate."

It is said that in some places hemp plant is grown round jowari and bajri cultivations to prevent the jowari and bajri plants from being attacked by certain insects. It is possible that the strong smell of the resin exuding from the leaves of the hemp plant may be acting as a germicide. This point requires to be fully enquired into.

One incident occurred during the course of my enquiries which has led me to express my opinion on the hemp drug question. Happening to come across an elderly man, a cultivator, whom I asked to give me some information on the subzi plant, the answer I received was to the effect:—"Sir, why is the Sirkar going to enquire into the subzi plant; let the Sirkar first enquire into the whiskies and sodas consumed by sahiblogues." After saying this, the man bidding good-bye to me went away. Such a pregnant remark from the lips of an illiterate man led me to think seriously about the question of comparing the uses and effects of subzi *versus* alcohol, and I have appended a separate memo. giving my opinion thereon.

The Indian hemp drugs problem has to be considered in their religious, political, financial and medical aspects. The first three lie beyond my province, and I will consider the question in a medical point of view. In such an important matter it is the duty of a physician as a practical man to argue the *pros* and *cons* of the question and give a candid opinion on the subject. With due deference to the opinion which may be expressed by my medical brethren in various parts of India, and with due respect to the opinion which may be expressed by able and well-experienced medical officers of that distinguished body of the Indian and Army Medical Service who have done so much to investigate the Materia Medica of India, I humbly beg to say that I consider the hemp plant to be a very useful one to the labouring classes in Sind, but the use of it has been much abused by some religious mendicants. In my opinion what porter is said to be to the working classes in England, subzi is to the working classes in Sind. To the labouring and cultivating classes in Sind who live in villages far away from medical aid, it forms a household remedy in fact a miniature dispensary to their families.

Supposing the hemp plant is an evil, can it be suppressed with the stroke of a pen? If so, what will be the sufferings of those who already take it in moderate doses, and what means will the State take to give them an effective and equally cheap substitute for subzi? If subzi is stopped, they might take to alcohol (country liquor), which is much dearer and worse than subzi. As to the effects of alcohol, I cannot do better than quote the following from the *Hindoo Patriot*:—

"We have daily—nay hourly—evidence of the ravages which the brandy bottle is making upon the flower of our society. Wealth, rank, honour and character, health and talents have all perished in the blighting presence of this huge monster. Notwithstanding the improved education and resources of our higher classes, it is a notorious fact that they can now save very little, and this new feature of our domestic and social economy is in a great measure due to the fell drink craving. Families once flourishing have been reduced to absolute pauperism by the wreck brought by it."

(Page 35 of papers for young men, Madras Religious Book Society, S.P.C.K, Vepery, 1889.) This was written some four years ago, and it is doubtful whether this state of things has improved since then.

Has such a graphic picture ever been drawn by any Indian or English newspaper as regards subzi? What do our own Scriptures say regarding wine and strong drink? Solomon the wisest, about one thousand years before Christ, gave an account of the wine bibber, from which it will be seen that with every dose of wine there is craving for an increased quantity until the individual goes into the state of seeking it yet again when he awakes, and this remark stands good up to this day.

Vide Prov. chapter XXIII, v. 29–35.

The abuse of subzi can be checked by legislature fixing the minimum quantity to be possessed by an individual as may be decided by a general consensus of medical opinion in India.

As regards ganja and charas I think their general use should be discouraged by levying higher duties on these articles, and the increase in revenue so obtained utilized in establishing dispensaries in out-of-the-way places in Sind wherever considered advisable.

In conclusion, I beg to say that the information has been gathered during the few spare hours in the midst of my arduous and responsible duties, and during this short time I have attempted to obtain as much information as I could, but it is not so exhaustive as I would desire. Besides the position of a Jail Superintendent, when appointed to get information on such a subject where public and State interests are involved, is a very delicate one, and his making enquiries into such matters is looked upon by some of the public with a certain amount of apprehension.

Comparative Statement showing the Effects and Medicinal Uses of Subzi, one of the Indian Hemp Drugs, and Alcohol (in its various forms).

Subzi.	Alcohol.
1. Moderate doses act as a digestive before food.	1. Stimulates appetite in moderate doses before food.
2. In small doses habitually taken does not lead to increased craving desire.	2. Moderate doses habitually taken lead to increased craving for alcohol.
3. Not known to produce abscess of the liver.	3. In many cases liver abscess can be traced to alcohol.
4. Used as a diuretic.	4. Acts as a diuretic in large doses.
5. Used for curing gonorrhœa and gleet.	5. Strictly prohibited in gonorrhœa and gleet.
6. Used as an application for painful piles.	6. Not so used.
7. Used for scorpion bite.	7. Not so used.
8. Used in various uterine affections.	8. Not so used except as a stimulant to support strength of the patient.
9. Very little effect on general tissue change.	9. In small and moderate doses lessens and in large doses increases tissue change.
10. There is but little excitement of circulation.	10. Excites cerebral circulation then begins to paralyse various parts of the brain in the inverse order of their development (Brunton's Pharmacology, page 200).
11. Used in whooping cough and bronchitis.	11. Not so used.
12. Used in diarrhœa, dysentery and cholera.	12. Not so used, except as a stimulant to support the system.
13. Used as antispasmodic in various nervous disorders.	13. Not so used.

20. *Evidence of Assistant Surgeon*, J. E. BOCARRO, *Lecturer, Medical School, Hyderabad (Sind)*.

1. Six years' private practice among a class of people, a large number of whom are habitual consumers of the drug in one or more of its various forms. Careful local inquiry. Personal observations made, and experience gained, by experiments specially conducted. Investigations into the history of nearly 150 *select* cases, comprising both Hindus and Muhammadans, young and old, of both sexes, varying between the ages of 15 years and 80 years (excluding females under 30), recent and old, moderate and immoderate consumers, those in the habit of using the drug 'plain,' or in combination with 'bhang massala,' and those habituated to the use of the bhang alone, or together with charas, or ganja, or opium, or dhatura, or with two or more of these drugs at the same time. Further, my cases include individuals engaged in different kinds of occupations, and of various status in life, the well-to-do as well as the poor.

2. Yes. The products are locally known as bhang, charas and ganja respectively.

Bhang = dried leaves + capsules. Ganja = flat ganja. Charas = resin (generally adulterated).

19. Yes, as far as I have been able to ascertain.

23. No.

28. (*a*) One pint of "panga," cost about one pie.

(*b*) One pint of "ghata bhang" (equal in strength to about 3 pints of "panga"), cost three pies.

29. The ingredients are—

(*a*) Ordinarily—khaskhas, coriander, black pepper.

(*b*) Exceptionally—fennel seeds, rosebuds, melon seeds, kasni.

(*c*) Very exceptionally—almond, milk.

Of the drugs enumerated in this section none enter into the composition of the bhang draught. As an *admixture*, dhatura is sometimes used with ganja, seldom with bhang, and is employed with the object of strengthening their intoxicating effects. Charas is always used with tobacco, the latter being employed as a medium for smoking the drug. Ganja, when smoked in moderation, is also mixed with tobacco, sometimes by itself.

"Bhang massala," commonly and ordinarily sold in Sind in all bhang shops, contains the following ingredients: to 6 tolas of bhang is added khaskhas about 1 tola, black pepper $\frac{1}{6}$ of a tola, coriander and kasni seeds (sometimes) of each $\frac{1}{4}$ tola.

In Sind, by far the greater number of cases employ bhang in its *plain* state, in the form of a fresh mixture obtained by maceration in cold water and straining. Ordinarily, the ingredients added are khaskhas, black pepper and coriander. These are bruised in a mortar and reduced to a pulp by the aid of water, and then added to the mixture already made. Black pepper and coriander are employed with the object of destroying the bilious tendency which the drug induces, and, to a certain extent, to flavour the potation. Khaskhas serves to brighten the colour of the mixture and render it pleasing to the eye, the original dark green colour of the fluid being replaced by a pleasant pale green. The poppy seeds, however, are supposed to have certain disadvantages. By their use, the mixture is said to become slightly acrid to the taste and stronger in its effects, especially in its soporific action. It is also believed that they tend to increase the quantity of bile in the system. Hence, when khaskhas is used, black pepper and coriander are invariably also added.

The plain potation is preferred by the majority irrespective of class, the rich and the poor alike partaking of it. In the "tikhanas," or places of worship, every evening, and in some every morning also, a sufficiently large service is prepared for gratuitous distribution not only to regular frequenters, but also to chance visitors, no matter who or what they may be. This *plain* drink, as distributed in the tikhanas, is a very dilute mixture of the drug, only half a tola in about 10 seers of water, and is known as "panga."

The group of ingredients marked (*b*) is said to confer upon the drink refreshing effects, and is generally brought into requisition during the hot

season. The fluid obtained by the maceration of these ingredients in cold water is known as "thadul," *i.e.*, a refrigerant. The first drug of this group of ingredients is employed on account of its carminative action, serving to relieve the flatulence which bhang not unfrequently produces; the rosebuds and melon seeds act as mild laxatives, and kasni (seed of the *Chicorium intybus*), being a diuretic and a mild hepatic tonic, is antibilious in its action and confers upon the drink additional refrigerant properties.

The ingredients mentioned in group (*c*) are employed only on very special occasions, *e.g.*, religious festivals, marriage feasts, etc., and then only by the well-to-do classes of people. In such instances the process of maceration is effected either in pure milk, or first in water, and the milk added subsequently.

Ganja is generally smoked with tobacco, sometimes by itself. Charas in combination with tobacco always.

30. As a rule, in solitude a larger quantity of bhang is consumed by each individual than in company. I should think, to judge from my cases, on an average, about double the quantity. Generally "ghata bhang," *i.e.*, a strong mixture, is used in private, while "panga," *i.e.*, a weak and dilute mixture, is distributed in company, *e.g.*, daily in the tikhanas or places of workship, at the various bhang shops, and at home gatherings. Both males and females (adults) partake of the potation; males in the majority by far. Young men over 18 sometimes, young women under 25 never. It is not usual for children to consume either of the three drugs. Ganja is used in larger quantities in solitude than in company; its use is generally confined to adult males, with the exception of prostitutes and the wives of certain classes of fakirs. Charas is more largely consumed in company than in solitude, and is almost entirely limited to the male sex.

31. No, provided the consumer is not naturally of dissipated habits.

Yes, as regards ganja and charas. Moderate consumers of bhang can easily break off the habit, as is seen in cases where the drug has been employed for medicinal purposes, or taken as a refreshing draught during the hot season only and discontinued in the cold. Even confirmed bhang drinkers can break off the habit, but, of course, with difficulty.

No; so far as bhang is concerned, I have found from careful enquiry that individuals who have used the drug over periods varying from ten to fifty years have done so without making any appreciable difference in their daily amount of consumption. A case which came under my notice of a man fully 80 years of age, and habituated to taking daily only a pice worth of bhang for forty-three years continuously, bears out my statement; and this is not the only instance of its kind.

32. I have simply been able to ascertain that the hemp being a plant sacred to Shiva, on Shivaratri day the followers of Shiva drink bhang as a matter of custom. The followers of Dheria Lal, the god of waters, use bhang with sugar-candy as a matter of religious principle once a week, namely every Tuesday morning. In both cases the drink *is* regarded as essential.

The quantity depends on what the individual is in the habit of consuming usually, which is seldom exceeded. The habit being already formed, and never broken or relaxed, may eventually damage the constitution, especially if the individual is also addicted to ganja or charas. I know of no custom where ganja or charas alone is concerned.

36. Hardly any. Those consuming any of these drugs are, I find, not satisfied if alcohol be substituted for them; and indulgence in alcohol does not destroy the craving for bhang when once the habit of taking it has been formed. Preconceived ideas of the beneficial effects of bhang, especially as being a "quiet" intoxicant as compared with "boisterous" alcohol, militate against the substitution.

37. Yes, the effects of bhang drinking differ materially from those of charas and ganja smoking, and the effects of the latter also differ from each other in certain particulars. Careful observations of many cases have helped me to record the following notes of their effects, and the points which distinguish one from the other. The effects of ganja and charas might be compared as follows:—

Ganja.	Charas.
Milder and slower in its action.	Stronger and more rapid.
Intoxication commences 10 to 15 minutes after smoking.	Intoxication commences with the very first pull at the *chillum*.
Effects last from half to one hour.	Effects last from 15 to 20 minutes.
Produces excessive dryness of the lips, mouth, and throat.	Same, but more marked.
Heart's action increased at first, afterwards lowered; so also the pulse.	Heart's action depressed from the first; also the pulse. (In one case the pulse became irregular and intermittent.)
Conjunctivæ suffused, and in confirmed smokers remain so permanently.	Conjunctivæ pale; gradually lose their gloss with each pull at the *chillum*, and finally become dull, dry, and misty.
Pupils, more or less dilated.	Pupils dilated, and more or less fixed.
Vision unaffected.	Vision impaired, for the time being.
Retinal vessels prominent; retinal field pink in colour marked by patches of deep red here and there.	Retinal vessels seemed thin and attenuated, the field a pale grey hue.
Respiration quickened.	Respiration normal or subnormal.
Excites cough with expectoration.	Excites a dry spasmodic cough.
Destroys appetite, but not completely.	Completely destroys appetite.
Causes thirst, but not much.	Causes excessive thirst.
Mucous membrane of the mouth and throat injected and tolerably moist.	Mucous membrane of mouth and throat pale and dry.
Tongue red and pointed, papillæ prominent, surface tolerably moist.	Tongue pale, flat, dry and harsh, surface covered with a thin fur.
Does not generally constipate the bowels.	Constipates the bowels.
At first individual is garrulous, sometimes boisterous.	No such previous stage of excitement generally.
Soporific effects come on late, but last for two or three hours.	Soporific effects come on immediately, are deeper, but last a briefer time.
Wakes up dull and morose, with blood-shot eyes, and, generally, a racking headache; mind tolerably clear.	Wakes up dazed and stupid, is inclined to fall off to sleep again, feels dizzy when made to sit up; mind dull and blunted.
Complains, on waking up, of languor and a feeling of stiffness in all the limbs.	The same, but generally also complains of muscular pains.

The effects of bhang, as contrasted with ganja and charas, are seen in the following description, which I have endeavoured to classify under four heads or stages :—

1st stage.—Its first effect is to produce excitement, generally exhilaration, which lasts for a long time as compared with ganja or charas. About a pie's worth of "panga" produces one hour's excitement, and a pice worth of the same, the quantity ordinarily consumed by habitual immoderate consumers, will cause three to four hours excitement. In this stage the mind is clear, imagination excited, physical exertion active, the appetite is keen, there is no dryness of the mouth and throat, no tendency to constipation, if anything, the movement of the bowels is regulated, no delirium. This stage generally subsides with profuse micturition. Habitual consumers who are working men are satisfied with this stage. A draught taken in the morning prepares them for their day's work, and a second repeated at sundown refreshes them after the fatigue of the day. With by far the majority, however, the practice is limited to the evening draught only. A few take it three times a day.

2nd stage.—Intoxication well marked. Generally lasts for several hours. For the production of this stage a quantity varying from a pice to two pice worth is sufficient. First effect of this stage is pleasant delirium, generally mild, sometimes boisterous; slight dryness of the mouth and throat, and of the bronchial mucous membrane; nevertheless, appetite is increased, but there is constipation, flatulence, and a sense of heat in the stomach. Much confusion of thought and of ideas, and an unnatural sense of fear or dread of things, the confusion affecting even his own individuality. Conjunctivæ somewhat injected, and pupils dilated; vision unaffected; mental power blurred. Increased sexual appetite, with, it is said, power to prolong the sexual act. Is employed up to this stage by not a few merely from habit, or sometimes to stimulate the sexual desire.

3rd stage.—Intoxication is followed by hypnosis, and finally a deep sleep, from which the patient may, however, be easily roused to consciousness only to fall off again into stupor. When the effects wear off, generally in three or four hours' time, he wakes up refreshed, with no pain or soreness in the head, or bad taste in the month. Has more or less clear and perfect recollection of past things which occurred before or during the fit of intoxication. In this stage, the appetite is impaired and bowels made costive. If administered with the purpose of allaying pain in any part of the body, such pain is not felt under the influence of the drug, but reappears when the individual wakes up from his sleep; hence, its anodyne effects, as such, are temporary.

4th stage.—May be of two kinds, *acute* and *chronic.* In the "acute" form, coma would probably follow the employment of the drug in poisonous doses. I have had no case to ascertain this fact. In the "chronic" form, the effects observed are loss of flesh and bodily vigour, indigestion, swelling of the abdomen, pasty skin, weak heart and pulse, dropsy, local or general, congestion of internal organs, especially the lungs and liver, hence chronic bronchitis and piles common, constipation, or alternate diarrhœa and constipation; mind excessively weak, amounting sometimes to dementia melancholica.

(*N.B.*—The experiments conducted by me have been with the use of the bazar drugs.)

39. No, it is in every way more injurious than either drinking bhang, or eating it in the form of "majum" or conserve. My reasons are detailed and comprised in section 37 *ante,* and sections 42, 44, and 45 *seq.*

40. Charas and ganja are not employed for medicinal purposes. Bhang was in vogue at one time, but at the present day very much less faith is placed in its medicinal effects by the native doctors. Its use is now limited chiefly to external applications, to painful sores and ulcers, local swellings, and painful joints, on account of the anodyne property it possesses. As a vermicide it is used for ear-aches caused by the presence of worms. Internally, it is brought into requisition in cases of fevers where insomnia is a marked symptom. It is not administered as a febrifuge, otherwise, because its later effects are supposed to be "heating." When employed in cases of fevers the drug is usually combined with such other substances as possess diaphoretic and refrigerant action.

In a very dilute form (a quarter tola in 10 seers, or even 20 seers of water), with or without the addition of nitrate of potassium, it acts as a good diuretic, and is made use of in acute and chronic gonorrhœa. Administered for this purpose it not only dilutes the urine, but also, to some extent allays the burning pain during micturition.

I have made no inquiries into the use of hemp in cattle disease.

41. Yes, bhang, but not either charas or ganja. (*a*) Yes; (*b*) yes; (*c*) no; (*d*) medicinal purposes.

42. Compared with such intoxicants as opium or alcohol, or with its sister-products, charas and ganja, bhang may certainly be said to be harmless when consumed in moderate quantities. The enervating effects of charas and ganja are absent in bhang. Its harmlessness appears best *en evidence* in those who have used the drug over periods varying from 15 to 40 years, and have, notwithstanding, lived to a ripe old age. In my notes of 150 cases and upwards, fully two-thirds are over the age of 40, a good many have attained the age of 50, and not a few even 60 years and more. I have personally examined a large number of those between the ages of 40 and 60 years, and have found them to be not only sound in all their internal organs, but also of good bodily frame. Further, what might appear to be a strange thing is that most of them have even preserved good vision. Cataractous condition of the lens is, I observe, an uncommon thing among those who take bhang in moderation. In the case mentioned under section 31 *ante,* the individual possessed excellent visual power for his age. Both charas and ganja, even in moderation, tend to deteriorate the health.

44. Slightly stimulating. Mind is cleared. Nervous tone is temporarily braced up. The individual is capable of more exertion than he would be able to command when not under its influence. Pulse and respirations are quickened. Conjunctivæ suffused.

No, unless used in combination with other refrigerant substances, and then in as dilute a state as possible. It warms up the blood in the first instance, and later on, when the stimulating effects are wearing off, it desiccates the mucous membrane of the lips, mouth, and throat, and brings on thirst. Yes, in fairly large doses.

No, on the contrary, it sharpens the appetite; and in this respect the action of the drug is certain, and to be depended on.

Yes, every one of my cases have recorded this as a constant effect of the drug.

The period varies with the general health of the

patient and the strength of the solution used. The average period, I should say, would be two hours. Force of habit, too, has to be taken into consideration. Of the cases recorded by me some are in the habit of using the drug twice a day, morning and evening, others, once a day only, and then generally in the evening; in either case, the draught is usually taken two or three hours before meal-time. A Sindhi generally takes two principal meals in 24 hours, one between 10 and 12 A.M., the other between 8 and 10 P.M.

With bhang, none of any importance. Ganja and charas, especially the latter, give rise to a dull frontal headache, singing in the ears, weakened mental power, much thirst, they also impair the appetite, constipate the bowels and concentrate the urine.

No. I am aware of many instances where individuals have used bhang only during the hot season, and discontinued its use altogether in the cold season, without a craving for it. I can quote about 25 cases where the drug was taken daily for medicinal purposes, and given up after a few months, without any difficulty. An habitual consumer misses his draught not on account of a natural longing for it, but simply because of the necessity of retrieving his nervous tone, which is invariably lessened directly the stimulating effects of the drug have passed off. The energy of an habitual bhang-drinker for work depends almost entirely upon his draught. There is no longing or uneasiness, even in the case of ganja or charas; smokers of the latter drugs will take them when they can get them.

45. I cannot say this of bhang, but charas and ganja, even in moderate doses, tend to weaken the bodily frame, diminish corpulency, deprive the individual of any capability to much physical exertion, blunt his memory, and make a coward of him. They also impair the constitution, and injure digestion. As regards causing the diseases mentioned, I have not a single case on record to warrant such a conclusion, so far as bhang is concerned, but several of my cases indicate that the continued use of charas and ganja do cause dysentery and bronchitis. I have no history regarding asthma.

Whether it impairs the moral sense, or induces laziness, etc., are questions difficult to answer in the affirmative in reference to Sindhis. It must be noted that the Sindhi is, by nature, a slow, indolent, apathetic race and subservient to a lax moral code, whether habituated or not to the use of these drugs. Bad example of the elders, and the evil influences of society, are, therefore, important factors in these questions, and must be considered. Hence the deviation from a correct moral code, as it should exist, cannot be directly attributed to the use of bhang in the relation of cause and effect. Without a predisposing tendency, bhang cannot be said to induce laziness or conduce towards evil ways, and the remark is equally applicable to the moderate use of ganja or of charas.

No, not when used by itself, or when free from admixtures, especially dhatura; also, not unless venereal excesses or self-abuse pave the way; further, a predisposing cause, such as a naturally weak intellect, must also exist. Bhang of itself, except if used in excess, is innocuous to the brain, and of all combinations, that of bhang and dhatura is the most harmful in this respect. Bhang with the simultaneous use of ganja or charas may give rise to insanity, but a predisposing cause must also exist. This question is further discussed under section 46.

46. Bhang, employed *in excess*, and its use extended over a long period of time, debilitates the system and brings on emaciation; also causes digestive disorders leading to piles and chronic dysentery. Chronic bronchitis is common with bhang-drinking in excess. Of asthma, I have no cases. That it impairs the moral sense, deadens the intellect, and leads to evil ways, I have no doubt. It does not produce insanity, unless predisposing causes exist. Ganja and charas may cause insanity, but I have no evidence to adduce.

I have on record one case of a young man, *æt.* 19, a *bhawa*, who was habituated to the moderate use of bhang, and once partook of ganja in excess. He had a *temporary* attack of acute mania, became violent, noisy, and abusive, would run into the streets naked unless restrained. His delusion was that all his friends were conspiring to kill him. The attack, which occurred some three months ago, and which subsided under treatment, has not recurred since, but I learn that the individual has not again given cause for it. Possibly the symptoms may be re-induced should cause be given. Among the class of bawas and fakirs, who lead a life of indolence and ease, cases of *dementia adventitia* or of *chronic melancholic mania*, are sometimes seen. In two cases of this nature, I had good reason to suppose that self-abuse played a prominent part, rather than the abuse of bhang or ganja. I have on record three cases of *mental excitement bordering on insanity* in the class of Muhammadans known as the "mawalis" (men habitually addicted to the use of intoxicants of all kinds, but especially bhang and charas, opium and chandul, and sunk in the depth of the intoxicating effects of these drugs), caused by the combined use of bhang and charas. In each case, however, the friends of the patients have asserted that the partial mental aberration was due entirely to the excessive use of charas, and not of bhang.

The following case, the only one of its kind I know of, may indicate that a person who is *deficient in self-control through weakened intellect may become insane by falling into the use of hemp.* He is a young Sindhi (Amyl), aged about 20 years. Though born of sane parents, he was from birth a simpleton. He spent the greater part of the day in the tikhanas in prayers and serving God, as his friends supposed. He there became habituated to taking bhang, in moderate quantities, it is said. On one occasion he took a strong dose of physic (jamalgota) which moved his bowels some sixteen to twenty times. This gave him a severe pain in the abdomen for which he was advised to take a big dose of "ghata" bhang. He did so, and on waking up from the stupor induced by the drug, he was found to have gone out of mind completely. At first he manifested signs of acute mania, was very violent, and had to be restrained by main force. His delusion was, and still is, that there is some one coming to kill him, and is in constant dread of being throttled. The boy is yet insane, but is not now violent either to himself or to others. There is no history of syphilis in the family, but his friends are not able to tell me whether the boy was addicted or not to self-abuse, a vice common among the youths of Sind.

I would here record also a case of *paraplegia* which came under my notice some time ago, and which was attributed to the excessive use of bhang. The patient is now dead. He was a man of about 35 years, with no history of syphilis or venereal excesses as far as I could ascertain from the other members of the family, and no habit of taking any other narcotic than bhang, except tobacco in moderation. He used "ghata" bhang of his own preparation twice a day regularly, and sometimes

even three times, besides what he happened to consume with his friends in the tikhanas. I learn that he died from exhaustion and bed-sores after three months' lingering illness.

47. No, for in the family history of many of the cases recorded by me, I find that, although the parents are habitual consumers, the children have not acquired the habit, and, further, I can say from personal observations, that the children of moderate consumers are in no particular way affected by the habit.

48. Enquiry in this direction has been met with very puzzling results. In the excessive consumer, the history of the possibility of an inherent syphilitic or scrofulous taint had always to be considered, which invariably tended to mar conclusions. I mention this because while in some cases the children have appeared to me to be tolerably healthy, in other cases, where a comparatively small amount of the drug was consumed daily, the offsprings were of exceedingly weak bodily constitution, pigeon-chested, thin-haired, flabby little mites.

In four cases that came under my observation, the children were decidedly rachitic. Such conditions as bad feeding and insanitary surroundings add no little to the difficulties in solving this question. Generally speaking, it appears that even the excessive use of the drug does not exert any material influence upon the health of the children.

49: No, but prostitutes use it largely as a stimulant, with the object, it is said, of being able to bear the strain of their nefarious practice. Hemp, no matter in what form, used in moderation, does not tend to produce impotence. The history of many of my cases helps me to entertain this opinion. In some of my cases, more children had been born, within a given period, *after* than *before* the time the father had taken to bhangdrinking.

50. Yes, by those in advanced age, generally, and by the young of dissipated habits. In the form of majum, the native doctor prescribes it for this purpose. Prostitutes use bhang only, but not ganja or charas, and then only in the day to procure sleep. Yes, more injurious, because, with the general breaking down of the constitution, impotence may follow, and possibly insanity, or at least a mental weakness bordering on insanity. Not directly; in a few of my cases where impotence had occurred, the lowering of the general health from venereal excesses seemed primarily at fault.

56. Among my cases I have met with seven of dhatura admixture, but none of the other drugs specified. Opium, employed not as an admixture, but as an additional narcotic to the use of hemp, is of pretty frequent occurrence. The former drug is combined with bhang, in moderation, in order to increase its intoxicating effects. My observations lead me to suppose that opium imparts to the system tolerance to resist the influence of bhang and ganja, for I find that opium-eaters always consume and bear well these drugs in moderate quantities, especially bhang.

These admixtures refer to personal consumption. With regard to bhang or ganja used in excess together with an admixture of dhatura, I have but two cases, and in both the latter drug was employed to strengthen the potation. Employed for the purpose of administration to others, I have only hearsay evidence to give. I am told that dhatura is sometimes thus clandestinely added either to bhang or ganja, but not to charas, and generally from mischievous or criminal motives, to procure that fanatical excitement as witnessed in some individuals during the Moharram or Holi festivals, or that mental disturbance tantamount to insanity constituting the cases known to medical jurists as "running amuck." In the middle of 1887 a number of such cases occurred, and I am informed that in all of them dhatura was employed as an admixture with bhang, and that the mental excitement produced, under which the individuals were ready to perpetrate the most atrocious crimes, was entirely due to dhatura.

57. I know of no such cases.

The conclusion I have arrived at with regard to the uses and effects of hemp is, briefly, as follows:—That bhang is on the whole, though habitually consumed, a harmless drug taken in moderate quantities, and that, used as an intoxicant, it compares very favourably, in many points, both with alcohol and with opium.

In the first place, it has cheapness on its side to recommend it, thus bringing it within the means of the poor, in whom, in the declining period of life, an intoxicant is as serviceable, if not more so, as in the rich. What, perhaps, is better still is the fact that while taken in moderation, like alcohol, it invigorates the system and causes exhilaration; taken in large doses, it is a "quiet" intoxicant compared with "boisterous" alcohol, and thus free from the attendant danger to person, or property, or domestic happiness, which only too often accompany the use of alcohol. There is also but little tendency for the habit of bhang-drinking to settle in the system, and in this respect it differs from the habit of opium-eating.

Another important feature in the use of bhang is its peculiar suitableness in reference to the climate of the country (India), and especially of Sind. In this province, where the heat for the greater part of the year is so great and so oppressive, general and indiscriminate use of alcohol would, I feel sure, play sad havoc with the constitution of many, and in my mind raises visions of many apoplectic brains and congested livers, of dangers resulting from an overworked heart and overstrained kidneys, consequences which are now of comparatively rare occurrence. Again, owing to the excessive heat, impairment or loss of appetite is not at all an uncommon thing, and in this respect, too, the peculiar adaptibility of the drug is made manifest; also the fact of its being used in combination with bhang massala, for the mixture helps to keep the bowels lax, an important precaution against the deteriorating effects of the weather.

The general physiological action of alcohol is to build up the tissues of the body, tending thus to give rise to corpulency; hemp on the other hand tends to diminish corpulency, and is therefore a fitter intoxicant for use in a hot climate than alcohol.

As regards diseases incidental to the use of bhang, these cannot be said to be either more common or more disastrous than those following the use of alcohol, or, for the matter of that, of opium.

Insanity is not a consequence of bhang-drinking, nor, indeed, directly either of ganja or charas smoking. A pre-existing tendency towards mental aberration, natural or acquired, from such predisposing causes as a weak intellect or moral depravity, respectively, will be found to be primarily at fault, such depravity being as much due to the degrading effects of a religious constitution, weak in its moral precepts and lax in the exercise of moral restraint, as to the baneful influence of bad example and evil social influences.

With regard to the use of hemp as a medicinal agent, I have a few remarks to offer. The drug,

no doubt, possessses valuable medicinal properties, which might, with profit, be taken advantage of, but the method in which the officinal preparations, extract and tincture, are made, is, in my opinion, unsatisfactory, and accounts for the disappointment in the expectations of those who have given the drug a trial. In both these preparations, the resin occurs in abundance. This should not be. The draught as prepared by bhang drinkers would be a better form for therapeutic administration. It is made by maceration of the bhang in cold water and repeated strainings, the fluid thus obtained being merely a watery solution of the leaves and capsules, with but little or no traces of the resin, which, being insoluble in water, is precipitated. In this dilute form it might advantageously be used as a stimulant and stomachic tonic and carminative, serving to invigorate the system, increase the appetite, and relieve temporary abdominal pains and flatulency. When its anodyne and hypnotic powers are required, the preparation should be made from ganja or charas (pure), and not from bhang, as these forms of the drug, employed in their natural state, seem to possess soothing and depressant effects rather than stimulant. A poultice of ganja, or of the capsules of hemp, makes a good anodyne application to painful piles (external) and ulcers. Ganja, in proper doses, would, I think, if used in the form of cigars, or burnt in a pipe, prove serviceable for the relief of certain forms of asthma, especially those complicated with bronchial catarrh and a weakened heart. In severe types of asthma unattended by such complications, charas smoking might, perhaps, prove invaluable in cutting short the spasms, but the drug being a powerful sedative will have to be employed with great caution. The uses of hemp as above described are put forward merely in the light of suggestions. Definite and careful experimental researches are necessary to ascertain the real value of hemp as a medicinal agent in the conditions and diseases specified. I regret to say, I was unable to accomplish this in any part, on account of the shortness of time allowed for the getting up of this report, and the want of convenient opportunities.

I will add, in conclusion, a few notes on the popular notions and ideas of the effects of hemp in one or other of its various forms, and I cannot do this in a more striking and interesting manner than by quoting verses of folk-songs on the subject. Of the three forms of hemp, bhang is regarded by the people as the least noxious and the most beneficial. The following verse illustrates the ideas as they emanate from a Sindhi mind, of the beneficial effects of bhang :—

"Safo hoje saf, Te subujo piti ker. Je nene mendi lai, Te bepari je piti ker. Je sukhi vihame rath, Te sanjeji piti ker. Je jhugo hoje chor, Te adhi piti ker."	Should you want your body clean, Then drink it in the morning. Should you wish to cool your een, Then drink it in the noon. Should you want a restful night, Then drink it in the evening. If home and comfort you would blight, Then drink it at midnight.

That charas is by all regarded as the worst form in which hemp could be consumed is emphatically expressed in the following doggerel verse :—

"Charas nahi, kahir hai ; Keleja to jal gaya ; Anki me lahir hai ;	Kang kurun, kasi kurun ; Anku se anda kurun, Pam se langra kurun, Ne murre te me kya karun."

which, rendered into English, would be :—

I am not charas, but a curse ; I burn the liver to its worse ; I bring on dryness of the eyes ; To phlegm and cough I must give rise,	To blind the eyes I never fail, Or cripple limbs that once were hale, In what but death ends my sad tale ?

21. *Evidence of Assistant Surgeon*, MULCHAND GANGARAM, *in charge Larkana Dispensary.*

1. I have been in service, either Government or Municipal, for the past five years, and during that period I have come across patients who were in the habit of using hemp drugs. Further, after my appointment as a witness by the Commissioner in Sind, I have instituted special enquiries in the town of Larkana about the matter.

2. Yes ; the definitions given here may be accepted for the province. The products are known as bhang, charas and ganja.

19. Yes ; ganja and charas, so far as I am aware, are used only for smoking.

23. I have never seen nor heard of any one smoking bhang.

28. (*a*) Bhang, 1⅛ tolas, cost ¼ anna.
Charas, $\frac{1}{16}$ tola, cost ¼ anna.
Ganja, ⅛ tola, cost ¼ anna.

(*b*) Bhang, 10 to 20 tolas, cost 2¼ to 4½ annas.
Charas, ¼ to ⅝ tola, cost 1 to 3 annas.
Ganja, ¼ to ⅝ tola, cost ¼ to 1½ annas.

29. Bhang is ordinarily used without any admixture by both classes of consumers. Exceptionally sugar, cardamoms and pepper are added by both classes to sweeten and flavour it. Habitual consumers sometimes add gram, sometimes til seed, and sometimes both together to the solution to increase, as it is alleged, its intoxicating properties. Milk is also occasionally added to the solution, to diminish the sensation of dryness of throat that is felt by the consumers. Hemp seeds are also sometimes added to make the solution less green. Charas and ganja are always smoked with tobacco by both classes of consumers. Nothing else is added to them. Dhatura is sometimes mixed up with bhang ; but this is used only for criminal purposes. Opium, so far as I know, is never mixed with it, but is taken along with it by those who are in the habit of using both of these drugs. I do not know whether nux vomica, cantharides or betel-nut is so used. I have no knowledge of any such preparation as bhang massala.

30. Bhang is used both in company and in solitude, but mostly in company. Its consumption is mainly confined to the male sex, and is used mostly by the young and middle-aged men. Charas and ganja are almost always used in company by young and middle-aged men. They are not used by females. I have never seen or heard of children using any of these drugs. Bhang is more used in summer, charas in winter, and ganja to an equal extent in both the seasons.

31. Yes ; the habit of consuming any of these drugs is easily formed. It is also easy to break it off, more easy to break off in the case of charas

and ganja consumers than in those of bhang. There is a tendency, in the case of all these drugs, for the moderate habit to develop into the excessive. This is specially marked in the case of bhang. Much, however, depends upon the pecuniary circumstances of the consumer.

32. I am not aware of any religious custom according to which any of these drugs is used. Amongst Hindus the bawas (religious head) keep a very weak solution of bhang in temples for the people who go there, and on certain days, for instance the new moon day or some holidays, they get prepared a larger quantity of such solution. There is nothing religious about this. They by doing so, get more customers, so to say. Again, on festivals amongst Hindus, the head of the family who gives the feast, sometimes gets a weak solution of bhang prepared, and distributes it amongst the servants and cooks who are engaged on those occasions. It is not essential that the head of the family should so entertain his servants. He does so either because he wishes to please them, or because he is asked by some of them who happen to be in the habit of using it. Again, in Hyderabad, Sind, there are certain families the members of which never use alcohol in any shape. They, on their festivals, entertain their guests with a sweet and flavoured solution of bhang. There is no religious binding upon them to do so. They have been doing so for generations, and the use of bhang in this way has become more or less a social custom amongst them. The use of bhang in the ways indicated above is always temperate, and is not likely to lead to the formation of a habit, except amongst those who visit the temples and partake of the solution daily.

I am not aware of any custom, religious or social, in regard to the consumption of charas and ganja.

Amongst Muhammadans there are *otaras*, where a religious mendicant lives, and where he keeps bhang ready for his customers. Such places are generally resorted to by habitual excessive consumers. Here charas and ganja are also smoked freely. There is nothing religious about it; but as charas and ganja are generally smoked in company, consumers find it convenient to meet at such places and indulge in these drugs. These *otaras* are almost always situated by the side of a tomb of some Pir or holy man.

33. I have no reason to think that alcohol is now being substituted for any of these drugs.

37. The effects of charas smoking last longer than those of ganja smoking, and those of bhang drinking the longest of all. The effects of charas and ganja are observed immediately after smoking and last a short time only, while those of bhang are noticed some hours after it is taken and last for many hours. Charas and ganja do not increase appetite. Bhang does. All produce sleep but bhang is the most effective in bringing it on.

39. I can give no opinion on this point.

40. Bhang is used internally by native doctors in dysentry and gonorrhœa, and locally as a poultice for boils and abscesses.

41. The moderate use of bhang is said to be beneficial as a food accessory. It also gives staying-power under severe exertion. It has no effects as a febrifuge. It is used as a cooling drink in summer.

The moderate use of charas and ganja is not beneficial in any of these ways.

42. I consider the moderate use of any of these drugs to be harmless.

Reasons.—I have never seen any bad effects, either immediate or remote, from their use in this way.

44. The immediate effects of the moderate use of these drugs on habitual consumers are, first it refreshes them and secondly it produces a slight degree of pleasurable intoxication, making the consumer feel happy for a short time. Bhang creates appetite. Charas and ganja do not affect it. The effect lasts in the case of charas for about two hours, in the case of ganja for about one hour, and in the case of bhang for about six hours. There are no after-effects. Yes; the want of subsequent gratification does produce longing and uneasiness.

45. The habitual moderate use of any of these drugs does not produce any effect beyond a temporary pleasurable intoxication. So far as I have been able to ascertain, it does not impair the constitution. It does not injure digestion or cause loss of appetite. It does not cause dysentery, bronchitis, or asthma. It does not impair the moral sense or induce laziness or habits of immorality or debauchery.

I am not aware of any cases where insanity has been brought on by the moderate use of these drugs. Nor have I any evidence to give to indicate that insanity leads to indulgence in the use of hemp drugs by persons deficient in self-control.

46. The habitual excessive use of these drugs impairs the constitution. It renders it feeble. Bhang, when used as an aphrodisiac, causes nervous exhaustion. Also it leads to impotence and sterility. All induce laziness and injure digestion and impair appetite. Excessive use is supposed to bring on temporary fits of insanity. Generally mania of some kind is produced. I have no personal knowledge of any cases where insanity was brought on by the excessive use of these drugs. Again I have heard of people occasionally running amuck. On enquiry in these cases, it is found that they had indulged freely in bhang just before the fit. Often in such cases a motive is found for the crimes committed by the persons affected, and it would seem that they had indulged in bhang simply to strengthen themselves for the perpetration of these acts. In some cases, however, no such motive appears to exist.

47. No.

48. Children of intemperate men are liable to nervous disorders; but I have no knowledge of any specific cases.

49. Yes; bhang is used as an aphrodisiac. It is so used by prostitutes also. I cannot say if its use in this way is more or less injurious than its use as an ordinary narcotic. Charas or ganja do not appear to be used as aphrodisiacs.

50. Bhang is used excessively also as an aphrodisiac. It is so used by some prostitutes. Its use in this way is more injurious than its use as a narcotic, as it causes nervous exhaustion. Also it leads to impotence and sterility.

56. The substances that are sometimes used with bhang are those noted in answer to question No. 29. They are used more or less to flavour it. They do not affect the effects of bhang. Til seed and gram are said to increase the intoxicating properties. Milk lessens the dryness of throat caused by bhang. I have heard of dhatura sometimes being mixed up with bhang, but this mixture is never intended for personal consumption. It is given by some of the criminal classes to their victims to facilitate them in the perpetration of crimes.

57. I have never seen nor heard of any one eating charas or ganja.

In conclusion, charas is imported into Larkana from Amritsar, ganja from Karachi and Hyderabad, Sind, and bhang from Sukkur and Shikarpur. Ganja is known as ganja Rajapuri. A kind of sweetmeat containing bhang is also sold by vendors of these drugs under the name of majum. It is prepared in the following way:—1½ lbs. of ghi, 3½ lbs. of bhang, and 4 lbs. of water are boiled together in a copper pot for four days. Ghi takes up the extract and assumes a green colour. This is then mixed with a hot saturated solution of sugar and rolled and dried. It is then divided into cakes. Some aromatic substances are sometimes added. This majum is not consumed to any great extent, generally taken by those who have not been able to obtain bhang at their usual time of taking.

---

22. *Evidence of* ELIJAH BENJAMIN, *Jew, First Class Hospital Assistant, Shikarpur.*

1. I being in charge of various dispensaries in the province of Sind for the last twenty-four years, I have had the opportunity of seeing some patients, from time to time, who indulge in the hemp drug.

2. Yes, the above definition may be accepted for this province, *viz.*, the three varieties of narcotic articles, which are obtained from the hemp, are defined as bhang, ganja and charas.

19. Yes, the ganja and charas are only used for smoking.

23. No, the bhang is never used for smoking.

28. The average allowance and cost of—

(*a*) Habitual moderate consumer is—

Three-fourth tola at a cost of 1½ pie (1/32th of an anna) per diem.

(*b*) Habitual excessive consumer—

Twenty tolas to 30 tolas at a cost of 6 to 9 annas per day.

29. (*a*) No, no other article is used in mixing with bhang for ordinary drinking.

(*b*) Yes. Opium, dhatura and betel-nut are mixed with bhang, in exceptional cases. The object of these ingredients is to obtain strong narcotic effects, and excite sexual desire.

No, I have no knowledge if any bhang massala has been prepared and sold, but for sweetening and flavouring the mixture; the moderate consumers use cardamom seeds, poppy seeds, saffron, sugarcandy and almonds.

30. Is most commonly used in company. Yes, it is chiefly confined to male sex and up to life. No, it is not usual for children to consume any of these drugs.

31. Yes, the habit of consuming these drugs can easily be formed. Yes, it is difficult to break off. Yes, there is a tendency of acquiring excessive habit for a moderate consumer.

32. The only religious custom of consuming these drugs known to me is among Hindus; that on certain day of the week a very weak preparation of bhang is made in temples and distributed. The ganja and charas are also freely smoked in groups by fakirs.

The Hindus call this preparation of bhang "vijoya," and it is regarded as essential. It is generally temperate. Yes, there is every tendency of forming a habit to excess.

36. No.

37. Yes, the effects of the charas smoking are more narcotic and last longer than ganja, and that the effects of bhang drinking are milder, and noticed some time after it is taken, while those of ganja and charas act immediately.

39. Yes, the effects produced by smoking ganja and charas are less injurious than drinking or eating it. By eating any of these drugs there is a tendency of retching nausea and diarrhœa, as these drugs cause irritation of stomach, and by smoking these drugs the brain is affected. Yes, there is a tendency of producing insanity.

40. Yes, the use of these drugs has been prescribed for medicinal properties by eminent native hakims such as Mukhzan and Tib Akhburi, etc.

Yes, the bhang (the hemp) is used in cattle disease.

41. (*a*) No.

(*b*) Yes.

(*c*) No.

(*d*) It is sometimes used to allay thirst, and act as diuretic in a very dilute form.

42. Yes. The moderate use of these drugs is harmless, because the moderate dose of these drugs produces slight and temporary narcotic effect.

44. (*a*) It causes slight narcotic effect immediately.

(*b*) Yes, it is slightly refreshing.

(*c*) Yes, it does produce intoxication.

(*d*) No, it does not allay hunger.

(*e*) Yes.

(*f*) Yes, for a short time only.

(*g*) Yes, it causes laziness and languor.

(*h*) Yes, there is an uneasiness and tendency for a more drink and smoke.

45. (*a*), (*b*), (*c*), (*d*). No.

(*e*) Yes, to some extent.

(*f*) No.

46. Yes, it produces noxious effects by using bhang, ganja and charas to excess. Yes, it impairs the constitution, causes loss of appetite, dysentery, bronchitis and asthma. Yes, it impairs the moral sense, and induces laziness or habits of immorality. Yes, it does deaden the intellect or produce insanity. I remember few cases coming to my notice here and at Sehwan, being merely of exciting causes of insanity, and it was only temporary. Yes. There is every probability of the symptoms being re-induced by using the drug after liberation from restraint. No, the insane don't confess to the use of the drug.

47. No.

48. The habitual excessive consumption of any of these drugs may bring on nervous disorder to the children of the excessive consumer.

49. The moderate use of any of these drugs is

practised as an aphrodisiac and by prostitutes also, and it is not more injurious than its use as an ordinary narcotic. No.

50. The excessive use of any of these drugs is practised as a great aphrodisiac by prostitutes, but its use for this purpose is more injurious than its use as an ordinary narcotic, since it causes nervous exhaustion, mental derangement and impotence.

The admixture of other substances with hemp used in moderation changes slightly the effect of dryness which the hemp would produce if taken by itself, and if it be used in excess the effect will be modified to a great extent.

I have said in reply No. 29 that the admixture of dhatura and opium with hemp in an exceptional case for personal consumption and object is already noted, but in many cases the dhatura and opium are administered in hemp to others, in order to commit theft and murder through malice.

57. I have not come across any case of the kind.

In conclusion, in my opinion the use of all these drugs should be discouraged and resorted to only medicinally. The prohibition of the sale of these drugs will save many persons being nipped in the bud and prevent the perpetration of offences and be instrumental in promoting the health and welfare of the public at large.

---

23. *Evidence of* Shaik Ali, *First Class Hospital Assistant, Jacobabad.*

1. During my medical career.

2. Yes.

Bhang, charas, and ganja.

19. To the best of my belief, I have known ganja and charas used only for smoking.

23. Bhang is very seldom used for smoking; but at a push ganja and charas smokers will substitute bhang when others are not to be had by both poor classes, especially Hindus and Muhammadans.

28. (*a*) About 1 pice worth, the weight of 2 pice per diem.

(*b*) About 2 annas worth, or 4 oz. per diem.

29. Ganja and charas are both mixed with tobacco and then smoked. The heavy bhang drinkers who find bhang by itself weak, generally add opium and dhatura; but many are in the habit of swallowing a pill or bolus of solid opium and drinking the bhang on the top of it. The object of these admixtures is to increase intoxication; but the preparation known as bhang massala used among Hindus, contains a little bhang, to which is added poppy seeds, pepper, cardamoms, almonds, and aniseed, and the whole sweetened with batashas or sugarcandy, and by those who can afford it milk and cream are added and the mixture used as a cooling beverage.

30. To an equal extent. It is chiefly taken by the male sex, mostly adults, and it is not usual for children to consume these drugs.

31. The habit is easily formed but very difficult to break off. Beginners start with a very small quantity about the weight of one-twelfth of an anna, and gradually increase it until they arrive at that quantity which they find sufficient to intoxicate. Yes.

32. Especially among Hindus, those who are not even in the habit of taking any of these drugs will partake of bhang on their holidays and on the occasion of a marriage. On Shivaratri in particular, they do consider it essential to partake of bhang, and on this day, in addition to the poppy seeds, pepper, cardamoms, and aniseed, they add dhatura and arsenic, also a leaf of the akra plant, that is half a pod of dhatura, and with the arsenic they draw a line on the bottom of the pot. Hindus, especially in Sind, do consider it necessary to make them happy.

It is generally temperate. It is not likely to lead to acquiring the habit, as many who drink bhang on Shivaratri don't touch it again for the remainder of the year. I do not consider bhang so used injurious.

36. Unknown.

37. Yes, charas is far stronger than ganja. The effects of charas are almost immediate, while ganja takes longer to act, the intoxication coming on after a time, and lasting a shorter period, say half an hour, while that of charas lasts about an hour or more. Bhang is far milder in its effects, but its intoxication lasts from 5 to 6 hours and is far less injurious.

39. The smoking of ganja and charas are far more injurious than drinking bhang or eating majum, which is a sweetmeat prepared from bhang. I find that ganja and charas smokers generally waste away, getting thinner and thinner as they continue in the habit, which is not the case with bhang drinkers; charas and ganja act on the brain, nervous, and respiratory system, which in time brings on constitutional derangement, such as bronchitis, shortness of breath, and seldom bleeding piles. It also causes sometimes temporary insanity.

40. Yes, hakims do prescribe it for its medicinal properties and prepare a sweetmeat called majum, which is used for aphrodisiac purposes. Bhang is also used in the treatment of cattle. Horse condition powders and boluses are prepared from bhang only.

41. I do not know any beneficial properties except medicinal.

42. Charas and ganja, although used in moderation, will, in my opinion, leave injurious effects in the end. Bhang, on the contrary, if indulged in in small doses is harmless.

44. The immediate effects of charas and ganja are on the nervous system; they do not refresh, but certainly produce intoxication. They do allay hunger, but do not create appetite. The effect of charas lasts about an hour or more, but that of ganja is slower to act, and lasts a shorter time, say half an hour. Yes, headache and a peculiar uneasiness, which is only relieved by another smoke, after the effects of which have passed away there is the same longing. Bhang is refreshing at first, but, when it commences to act, its intoxication causes a frightened feeling or timidity, but is far milder in its effects. The intoxication lasts from 5 to 6 hours. It does not allay hunger, but on the contrary creates appetite. A person under the effects of bhang will eat more than usual. There are no after-effects, so to speak, resembling those of charas or ganja; but if the bhang drinker does not take his usual *quantum* at the stated hour, he does feel an uneasiness and a longing, and he cannot eat his food properly, as it seems distasteful.

45. (*a*) The habitual *moderate* bhang drinking produces no noxious effects, but smoking charas and ganja makes a man physically and mentally feeble. It has no bad effects morally.

(*b*) Yes.
(*c*) Yes.
(*d*) Cause bronchitis and shortness of breath.
(*e*) Yes, it does impair the moral sense or induce laziness.
(*f*) My idea is that it does deaden the intellect, and it will produce temporary insanity in very excessive smokers. To me it appears the exciting cause. No such case has come under my observation. Unknown.

46. The excess quantity impairs the constitution. It does ruin the digestion. The ganja and charas smokers generally suffer from bronchitis and shortness of breath. It does impair the moral sense, and does produce habits of laziness and immorality. No such case of madness came under my notice.

49. Bhang is used by the hakims as such. It is seldom used by prostitutes.

50. Unknown.

56. To increase intoxication in both, *i.e.*, (*a*) and (*b*).

57. Unknown.

59. I questioned a man who came to me for treatment suffering from nyctalopia, and the cause was traced to ganja and charas smoking, which he was addicted to some three years back. There is no doubt that these drugs have a baneful effect on the human system and that they derange the constitution generally. It is, in my opinion, a useless and expensive habit, acquired to no purpose. Among the labouring classes especially, the habit of bhang drinking and ganja smoking is the means of robbing many families of the little necessaries of life, and often the means of depriving them of food. If a coolie, for instance, who is given to this practice, earns two annas in the day, he will, come what may, spend the half of it on charas and bhang. Then, on the remaining anna I ask, how is he to feed his hungry little ones. Therefore it is my belief that a restriction put on sale of these drugs, allowing a man to purchase them for medicinal purposes only, or by raising the price so that it will not come within the reach of the poor will benefit the masses. The habit of consuming any of these drugs is doing more harm than good to the people of India, and it has come under my notice that in very nearly every case of murder, rape and robbery these drugs have been employed with the admixture of dhatura and administered to the victims before the deed, and it is my opinion that the free sale of these drugs is an accessory to crime.

24. *Evidence of* Dr. S. M. Kaka, *Medical Officer of Health, Karachi.*

1. As a medical practitioner of eleven years' standing and as medical officer of health, I have had some opportunities of becoming acquainted with hemp drugs and their effects, especially in Karachi. My answers will mainly have reference to the city.

2. These definitions may mainly be accepted as correct: flat variety of ganja is the most common, bhang is known as subzi, chilti, thandai or thadul (cooling drink), sai, abo, booti, punga (weak bhang). Charas is spoken of as bharaga. Ganja is, so far as I am aware, known as ganja.

16. Bhang may be prepared by the people in their houses. I fancy it can be prepared from the hemp plant wherever grown. I do not think ganja and charas can be prepared from the wild plant wherever grown.

19. Ganja and charas are smoked generally. Religious fakirs, gosains, and persons following in their wake often eat a powder made of ganja and rock-salt or sugar. This method of eating ganja is very common, I believe, throughout the province, the fakirs carrying a certain amount of powder during travelling, or when they pass from one district to another to worship their shrines.

20. Hindus mainly smoke ganja, Muhamadans charas. Roughly speaking, 1 in 1,000 smoke charas and 1 in 2,500 ganja.

21. Flat ganja is preferred.

22. Foreign charas is used, imported from Central Asia through Amritsar and Loodhiana.

23. I do not know if bhang is used for smoking.

24. Hindus are the chief consumers of bhang. It is, so far as I know, only drunk. Roughly, 1 Hindu in every 250 drinks bhang. The proportion in the case of Muhammadans is 1 in 1,000 or more.

	Per 1,000 consumers.	
	Habitual moderate.	Habitual excessive.
26. Bhang	800	200
Charas	750	250
Ganja	750	250

27. The consumers of all the hemp drugs are derived from the poorer classes mainly. Bhang is indulged in by the rich. Low company mainly leads to the practice.

28. Habitual moderate consumers—

Bhang	½ to 1 tola,	price ¼ to ½	anna.
Charas	1 massa „	½	„
Ganja	¼ tola „	½	„

Habitual excessive consumers—

Bhang	1 to 2 tolas,	price ½ to 1	anna.
Charas	½ tola „	3	annas.
Ganja	1 „ „	2	„

29. Ordinary ingredients added to bhang are poppy seeds, black pepper, cardamons. The ordinary majum of the bazar is prepared by macerating bhang in water and adding ghee. The mixture is boiled. The ghee extract is separated, sweetened, and flavoured and coloured and allowed to cake in flat dishes.

Yunani hakims prescribe a majum containing mace, myrobylans of all kinds, senna, ginger, musk, almonds, pistachio nuts, opium (in the proportion of 1 tola of each to the seer of bhang), the basis being honey, syrup, or molasses. The majum is said to improve digestion, keep the *primæ viæ* in order, give a general tone to the system, and to act as an aphrodisiac.

Dhatura is used as an adulterant by retail vendors of prepared bhang. Many consumers of bhang are opium eaters. Very rarely opium is mixed with bhang. Some butchers in Karachi use the two together with a view to increase virile power and prolong sexual intercourse.

Ordinary bhang massala of the bazar contains poppy and hemp seeds, sugar, black pepper, cardamons, almonds, rose petals, water-melon seeds, and coriander, mace, and nutmeg are added in the cold water. Sometimes bhang is prepared in milk.

30. The drugs are chiefly consumed in company. Bhang may be drunk in solitude; but charas and

ganja are mainly if not invariably, smoked in company. The drugs are chiefly consumed by males. The proportion of consumers appear to be greatest between the ages of 16 and 30 than at other ages. Females and children do not usually indulge in them. Prostitutes may use the drugs in one form or another. Females in the interesting condition and children are given bhang by their relations to induce sleep. I have seen a few children 7 and 8 years old and boys from 10 to 14 smoking charas and ganja.

31. The habit of consuming the drugs is easily formed. It is difficult to break off the habit in the cases of ganja and charas chiefly. There is a greater tendency for the moderate habit to develop into the excessive in the case of young adults moving chiefly in bad company. In the case of bhang and ganja the habit develops into the excessive after a comparatively greater length of time than in the case of charas.

32. During the hot weather months the Hindus leave in various parts of the city earthenware pots containing weak bhang. Bhang is also called Shiva booti, because it was the favourite drink of Shiva, and on the holiday Shivaratra the above practice of allowing people to drink bhang from pots placed in various parts of the town is usually followed. The custom is not a strictly religious one. At Hindu weddings it is usual to offer visitors and friends bhang; but it is quite optional for them to drink it or not. The consumption can be generally regarded as temperate. It is usual for those who have already acquired the habit to consume bhang at such times and places.

33. The better class of Hindus and Muhammadans regard the consumption, especially of ganja and charas, with great aversion and disgust. They consider the indulgence a vice, knowing that the drugs will be the ultimate ruin and degradation of the individuals consuming them; and if they have a friend or relation, they will feel ashamed to have any connection with him, and try to dissuade him from indulging in any of the drugs.

34. It would not be a serious privation to the consumers, even in the case of bhang, to forego the consumption, except perhaps in the case of habitual excessive consumers whose minds and bodies are enslaved to either ganja or charas. They might suffer from mental excitement if the drugs were completely withheld.

In a population of 100,000 there would be roughly 4,000 bhang drinkers and 1,000 each of ganja and charas smokers.

35. It might be feasible to prohibit the use of charas and probably ganja. The former can be prevented from being imported. The growth of the plants can be restricted. The sale of the drugs, except by chemists, can be rendered penal, and the consumers, except under medical advice, can be made liable to punishment.

The prohibition I do not fancy would cause any serious discontent; neither do I think that any discontent would amount to a political danger. I do not consider that prohibition would be followed by recourse to alcoholic stimulants.

36. I have no reason to believe that alcohol is now being to a certain extent substituted for ganja and charas. The better class of Hindus who have of late taken to alcohol may give up bhang for brandy.

37. Charas smoking produces almost instantaneous effects, ganja smoking some time afterwards; whereas the drinking of bhang produces effects gradually and after a greater length of time.

39. The smoking of ganja and charas I consider more harmful to the system than the drinking of bhang or even the eating of ganja, for the reason that there is absorption, both rapid and in large quantities, of the deleterious *cannabis* into the system.

40. Yunani hakims generally prescribe bhang to alleviate pain as in orchitis, in which bhang soaked in water and mixed with nux vomica is applied to the testes. In neuralgic affections of the eyes bhang is both applied and instilled. Weak bhang is given internally in gonorrhœa. It is also prescribed, mixed with curds, in dysentery.

Bhang and a pill containing ganja and black pepper are also given to prolong coitus.

I do not know if charas is prescribed, by any class of native doctors. I cannot say that any of the drugs are used in cattle disease.

41. I do not consider the moderate use of ganja and charas to be beneficial in any way.

Bhang may be taken as a digestive, a cupful of weak bhang being taken immediately or a little before meals by moderate habitual consumers.

42. I certainly consider the moderate habitual use of ganja and charas to be harmful.—*vide* answer to questions 45 and 46.

43. Usually they are.

44. The immediate effects in the case of bhang are cooling and refreshing, but subsequently, and in the case of charas and ganja immediately; a sensation of warmth, with general dryness and heaviness of the head, and intoxication result. Bhang creates appetite. Ganja and charas do so in the case of beginners. It is not uncommon for the moderate consumer of either of the two latter drugs to forget his food, although if once he starts eating he may do so ravenously. The effects in the case of bhang last on the average from 2½ to 4 hours; in the case of ganja and charas from 4 to 5 or 6 hours. I do not know if moderate habitual indulgence in bhang produces any special after-effects. Unpleasant after-effects are not uncommon among ganja and charas smokers, characterised by languor, yawning, idleness and general weakness. The want of subsequent indulgence produces a craving to a greater extent in the cases of charas and ganja than in the case of bhang.

45 and 46. The habitual moderate use of ganja and charas acts injuriously upon the constitution physically, mentally, and morally; more so the excessive indulgence of all the hemp drugs.

Hemp drugs chiefly act upon the brain, producing pleasurable excitement and intoxication with hallucinations. The individual, fancying himself in paradise, is happy and contented with himself and his surroundings. He laughs, sings, libidinous ideas are frequent in his head; the appetite is at first increased. These sensations are followed by sleep.

The pleasurable sensations and hallucinations lead to constant indulgence, and in large doses of the drugs; the pleasing sensations become gradually less marked, the individual remaining in a state of stupor. He becomes anæmic, pale, dusky in hue, debilitated, the eyesight fails, the eyelids droop; bronchitis, and especially asthma, are noticed in habitual consumers, chiefly of charas; the appetite fails; the individual becomes sluggish, idle, suffers from forgetfulness, the mind deteriorates, the person does not attend his work regularly,

does it by fits and starts, and ultimately leaves it off. Persons of the labouring and artisan classes turn beggars and fakirs, infesting mosques, burial grounds and the like. Thorough physical and mental debasement ensues. Excessive venery and prolonged sexual intercourse, leading to ultimate impotence are common. Religious mania and dementia may follow.

There is also evidence to show that hemp drugs produce acute mania with homicidal violence, acute melancholia with attempted suicide, and chronic dementia. Persons have also been known to have run amuck with or without motive.

The insanity is temporary in the case of acute mania generally. I know of a young Muhammadan who had to be kept under restraint, having become the subject of acute mania from habitual excessive indulgence in the drug. He is now well; but still infests burial grounds to indulge in the poison in large doses.

In cases where dementia supervenes recovery is not probable; both my cases are still dementic. I do not know of any typical symptoms when persons become insane from indulgence in hemp drugs.

In the cases known to me, so far as I was able to make out, there was no mental anxiety or brain disease leading to indulgence in charas. I do not know of any evidence to indicate that insanity may often tend to indulgence in the use of hemp drugs by a person who is deficient in self-control through weakened intellect.

48. I know of only one instance in which the whole family (sweeper caste) indulge in charas in large doses.

49. Hemp drugs are used for their aphrodisiac properties. Prostitutes also use them for this reason. Often the drugs are indulged in because they prolong sexual coitus. The strain upon the nervous system is sure to increase the evil effects of the drugs. I cannot say that the moderate use of hemp drugs tends to produce impotence.

50. Habitual excessive use tends to produce impotence.

51. The habitual moderate consumers, chiefly of charas, are bad characters, loafers, vagabonds, thieves, shop lifters, etc.

53. Yes, cases have been recorded.

54. Yes.

55. Yes, complete stupefaction can be induced without admixture.

Oral evidence.

Question 1.—I passed in 1882, and was Travelling Analyst for Government up to 1884, and was Lecturer in Hyderabad (Sind) Medical School, and practised privately. I have practised in Karachi since 1884. I was appointed Health Officer in 1889. Since then my duties have left me little time for practice. I have no special experience in insanity. My answers are based partly on personal experience and partly on reliable information. The answers dealing with effects are mainly based on personal experience, chiefly during the last four years. They refer exclusively to the town of Karachi, not to any experience I have had in the country. My study of the subject may be regarded as confined to the town of Karachi. I have had my attention specially directed to this subject by receiving the questions of the Commission. Before that I gave this no more attention than other medical subjects.

Question 29—I have been shown the seeds of dhatura in a small bag in the shop of a vendor, and he told me he used them to mix with bhang. The result is that the mixture is stronger without increasing the cost. He did not give me the proportion of dhatura used. I understood that he generally used it. I have not ascertained whether this is done by any other vendor. The seeds were pounded up with the bhang which is kept ready for drinking. When I got this question, I made enquiries and found out this man. I do not think the practice is general. I visited several shops, but could not obtain further information. I know of no other way in which dhatura is mixed with hemp drugs. Nor do I know of any other powerful drugs (such as opium) being so used. There are many shops (I should say more than six) selling made-up liquid bhang in Karachi. The consumer would not know that there was dhatura in his bhang drink unless he were told.

Question 30.—It is rare for such young children to use the drugs; but I have seen it. They are generally poor low Muhammadans. The debauchee parent gives the drug to the child.

Question 34.—My statement about the possibility of mental excitement from deprivation of the drug is purely matter of opinion. It has no basis in experience.

Questions 45 and 46.—The effects here described (after paragraph 1) refer to both moderate and excessive use in part. It is difficult to draw a definite line between moderate and excessive use. They merge into one another. But generally speaking the results from paragraph 3 onwards are of excessive use, though with some constitutions the moderate use might cause them.

I base my remarks on personal experience. I have visited the haunts of the *mawalis* (or debauchees). I have followed out some of these cases (seen in these haunts) and made definite enquiry regarding them. Some were persons I had known before. There are four cases of insanity which I have specially watched, and of which I know the details. I have dealt with none of them professionally. I have enquired into them with the object of bringing them before the notice of the Commission. I believe I have enquired into the history of these cases as carefully as I should have done had they been before me professionally. I had formed no opinion as to the evil of the drugs. A Sub-Inspector of nuisances under me showed me the cases. None of them had been in the asylum. They were all Muhammadans. Three of them have no relations; and one has a mother and brother. I understand that they were once all earning an honest livelihood, but became wrecks by the use of the drugs. There are three still at Karachi; one has gone. These three are still insane. I never knew any of these men before this inquiry. They were only shown to me in the course of this inquiry, and I enquired into their cases.

A, a Muhammadan, 24 years of age, commenced smoking charas at the age of 16. His mother and brother are both alive and told me so. They said that he got into the habit by associating with the *mawalis*, who resort to burial grounds to smoke. He also told me himself in his lucid intervals. He was a working man. I do not know his occupation. He got into bad company and left off work completely. This was at least three years ago, at least a year before his first attack. I am told he had an attack of acute mania two years ago, which lasted six months, during which time he was kept in restraint. He was not treated but was cured.

He resumed his old habits and had a relapse five days before I left for Bombay to appear here. He had apparently purposely lighted his mattress and burned himself in a fit of madness on the Sunday before my departure (which was last Thursday). I saw him the next day. He was then incoherent and confused. I saw that both his legs were burned. My Sub-Inspector knew he had been mad six months, as stated above. I don't know whether this company, in which this man was, had other vices or not. They were associated because they were all bad characters, birds of a feather; but I cannot say that it was an association for charas smoking. They are not spirit drinkers. They may have been given to sexual excess; very probably this man was. I have never seen any one smoke dhatura. I did not ask whether they used it. The man's father is dead. I do not know what he died of. The mother said there was no insanity in the family. I don't know what was the condition of the boy when he began the drug; but I was told he was healthy. That information is reliable, I think. This is a case of mania. He was introduced to me as a case of insanity which had occurred eighteen months ago; and I enquired into the case from him and saw the mother as well. I did not enquire into heredity in the sense of going back any generations. I simply asked the mother if there was insanity in the family; and she said "no." The use of the drug in this case may have been both the exciting and predisposing cause. That is, the effects of the drug predisposed the patient to the insanity which was subsequently set up by the drug.

I have had no experience in inquiries into insanity. I think it may have been a defect in my inquiry not to go fully into heredity; possibly also not to enquire into dhatura, which I believe may cause insanity. I also think that sexual excess may be a cause of insanity; but I had not considered this. I had not excluded all other causes; but I still think that charas smoking was the cause of insanity. This is the case of the Muhammadan referred to in the sixth paragraph of my printed answer.

The inquiries into the other three cases are similar in their conditions. I could hardly obtain as full information in them as in this case; for there were no relatives.

---

25. *Evidence of* Makhdum Dost Mohammed Makhdum Fazul Mohammed, *Zamindar, Bubak, Karachi.*

1. I have no personal experience. I do not take bhang, etc. I make the following statement from inquiries made from other persons.

2. The names given here are the same as those which I am accustomed to.

3. Bhang is cultivated in abundance in Bubak, taluka Sehwan, district Karachi, but does not grow spontaneously.

4. In this province this name alone is known, and no other name.

5. This question is not applicable to Sind.

6. The wild plant does not grow here. Nor have I seen it.

7. Bhang is cultivated in Sind.

(*a*) Ganja is not prepared in Sind.

(*b*) Charas is not prepared in Sind.

(*c*) The hemp plant is used for bhang in Sind.

(*d*) It is not cultivated for its fibres, but for its seeds and for the drink which is made from it. It is abundant in Tapa Bubak.

8. The cultivated area is neither increasing nor decreasing. It is stationary.

9. The land is first irrigated, then ploughed, then seeds are scattered over it; when the crop grows to some height, it is cleared of weeds and manured. This procedure continues till it grows knee-high; afterwards, before it grows to its complete height, the male plants are cut off. After arriving at its proper height it produces seeds. The stalks are then reaped and spread out to dry. The stalks are beaten, and then they are separated from the leaves by winnowing. The seeds are reserved for planting again and the bhang is sold to farmers.

10. Hemp cultivators form no special class. They are of the same class as other agricutural cultivators.

11. This is not applicable to this province.

12. I know nothing about this, and no one in this province knows where it is prepared.

13. There is none in this province. I do not know anything of it in the place where it is produced.

14. About 4,000 maunds of bhang only are produced in Bubak, taluka Sehwan.

15. The mode of cultivating bhang is shown in my answer to question 9, but the wild hemp plant does not grow here. It is neither smoked nor eaten in Sind. So I cannot give the required difference.

16. It is prepared in houses and fields and can be prepared wherever it is cultivated. I know nothing about the wild bhang.

17. Hindus cultivate and prepare bhang.

18. I know nothing of charas and ganja, but bhang deteriorates by keeping long. It loses its effect in course of time. It keeps good for twelve months, after which it gets weak; after two years it loses all its effects. There is no special measure taken to prevent deterioration.

19. *Note.*—As ganja and charas are not prepared in this province, the difference cannot be shown.

It is used for smoking and is imported from other countries.

20. No special class of people drinks or smokes it. People of all classes are habituated to it and use it. The *tikanas* of Hindus and *dairas* (inns) of Mussalmans are the principal places where it is used.

21 and 22. I do not know.

23. Bhang is not used here for smoking, so I can give no particulars.

24. (*a*) Bhang is not eaten.

(*b*) It is drunk.

No special places are appointed and no special class use it. People buy it from the licensed shops and use it.

25. It is now increasing; formerly people were more religious, now they are losing all their scruples. Formerly people had great fear under Muhammadan rule, but now being habituated to the use of hemp drugs, the number is increasing.

26. No accurate information can be obtained regarding these.

27. Generally fakirs use intoxicating drugs. Bhang is the root of all hemp drugs. First people learn bhang drinking, thence they are led on to take other drugs.

28. (*a*) Habitual moderate consumers of bhang spend ½ anna daily, and excessive drinkers drink bhang $\frac{1}{16}$ to ¼ of a seer daily.

(*a*) Moderate bhang consumers drink 2 tolas.

(*b*) Excessive bhang consumers consume 8 tolas.

29. I do not know.

31. The habit of drinking bhang is easily contracted, and it leads to excess, and then it is difficult to break off the habit. It would not be difficult to prohibit it in the case of beginners at the habit.

32. None of these drugs is allowed under the Mussalman law. But among Hindus certain religious fakirs use bhang and consider it lawful.

33. The use of these drugs is generally regarded as bad, and generally their use is in disrepute. For a man when intoxicated loses his senses. I do not know it positively, but I do not think any sect worships the hemp plant.

34. At first there will be much inconvenience, but giving it up will cause no injury, for the intoxicating drug does not satisfy hunger; it only gives temporary relief. I cannot give the exact numbers, but many fakirs would be inconvenienced.

35. Prohibition could be effected by Government if an Act were passed prohibiting the use of any of these drugs. Such a prohibition will at first cause discontent among the consumers, but such discontent would subside. It would involve loss of revenue to Government. The prohibition would not be followed by recourse being had to alcoholic stimulants, etc. I cannot, however, speak with confidence.

36 and 37. I do not know.

38 and 39. I could not obtain any information on this point.

40. This drug is not prescribed as necessary by Greek physicians, nor should I think of prescribing it generally.

41. The habitual use is not beneficial in its effect, but the occasional use gives a temporary benefit. I am speaking only of bhang.

42. Bhang, if moderately used, is not injurious, but ganja and charas are injurious. For the intoxicating effects of bhang are less than those of the other two.

43. No.

44. It is refreshing. It produces intoxication. It creates appetite. Its effects last for 3 hours. It produces longing if it cannot be obtained.

45. (About bhang alone.) It produces physical energy. It produces noxious effects in morality. At first the appetite is lost. It produces habits of immorality and debauchery.

It may deaden the intellect. It does not produce asthma. It produces temporary insanity in many cases. I know nothing more.

46. I do not know.

47. I have never heard of its being hereditary, and no effects are visible in the children of parents who consume it.

48. I cannot get sufficient information.

49. I have no experience. Prostitutes do use it. It is commonly known that excessive use of it for that purpose ends by destroying manly power.

50. I cannot obtain any information.

51. One who has experience will be able to say. It is the root of all vice.

52. I do not know.

53. It is very probable that it leads to the commission of offences.

54. One occasionally hears so.

55. It may be so.

56. I cannot say anything about it.

57. I do not know.

58 and 59. I cannot say any thing about it.

60 and 61. It is not produced in this province.

62. The control exercised by Government on the cultivation of bhang is sufficient.

63 and 64. I have no objections.

65. I cannot say anything about it.

66. I do not know.

67. I cannot say anything.

68. There are such shops, and they are licensed. I cannot say anything further.

69. The wishes of the people are not consulted, nor do I think it necessary that public opinion should be considered.

70. I do not know.

---

26. *Evidence of* Seth Vishindas Nihalchand, *Zamindar, Merchant, and Contractor, Manjoo, Karachi.*

1. I have an experience of thirty-five years. And I am a zamindar, contractor, and merchant. My tenants cultivate bhang in certain portions of my land. Many classes of people work under me, among whom there are many consumers of hemp drugs, and I observe their habits of smoking and drinking. I have experience of tikanas, dharamsalas, dewaras, madhis, and otaras, where these drugs are extensively used, and of persons using them in the above places and of the consequences resulting from them. Fakirs and saints (religious devout persons) are often my guests. I have observed them using these drugs, and gained experience from personal observations. Except on rare occasions, I have one or two physicians always working under me, who treat those persons whom I employ under me, and other physicians are often my guests. I have gathered some information from them too. Moreover, I have gathered this information from observing the habits of consumers of these drugs in my village and in other towns and from enquiries from others.

2. Dr. Prain's report that in India three narcotic articles are obtained from hemp is correct, and the modes of preparing them as detailed by him are also generally true. But in addition to the names of bhang given by him, it is known by other names also, as the plant of Shiva, sai, akoi. But these names are not given to the dry leaves of the plant, as mentioned by Dr. Prain. The names sai and sabzi are given to the pounded and wet leaves of bhang. But the names akoi, pali, and Shiva plant are given to the dry leaves of the plant; Shiva plant and siddhi have the same signification;

bhangro is produced from the hemp plant. Dr. Prain's words "whether cultivated or not cultivated" are not applicable. The words "standing or fallen" should be substituted. The mode of preparing charas, as described by Dr. Prain, is correct. The active principle of the hemp plant, when distilled, forms charas. The manufacturers of charas distil bhang, ganja and flowers very dexterously, and prepare charas out of it. Charas is formed in balls, but it is not prepared in Sind; but prepared charas is imported into Sind for use here from the Punjab and Kandahar. Merchants send for it for trade purposes. It is correct. Ganja consists of the dried flowering tops of cultivated female hemp plants. The female hemp plant does not produce seeds. Dr. Prain is wrong in saying that the formation of seeds is prevented by the destruction of all the male plants, that is to say, the cultivated male plant does not produce seeds. The varieties of ganja as manufactured from the hemp plant, and the modes of their preparation and their varieties as given by Dr. Prain, are correct. These varieties are made in the manner described. But all these varieties are not prepared in Sind, but are imported into Sind for consumption here from Cutch and Sholapur, Barsee, and other places. Merchants send for them for trade purposes. In addition to the above, another variety of ganja is prepared from the hemp plant in Sind. The tops are called ghundis. These ghundis in size are equal to small ears of corn. These ghundis are smoked as ganja by many people. Their intoxicating effects are the same as that of ganja, but a little less, and they are called ghundi ganja.

The different names by which these products are known in Sind are given above.

3. The hemp plant grows spontaneously only in the Kohistan part of Sind. It grows there because of the heavy rainfall. Kohistan is a mountainous tract on the western side of the districts of Karachi and Shikarpur. But in Kohistan the wild plant grows in certain tracts only and not everywhere. Moreover, in any damp place or on the edges of hollows, where rain water lodges, and in other places seeds of the hemp plant accidentally thrown or left there by bhang drinkers, who may have pounded the leaves and drunk it there, spring up when any rain falls on them; but these scattered plants are often eaten by cattle.

4. (1) Bhang, (2) patti, (3) sabzi, (4) sai, (5) siddhi, (6) Shiva plant, (7) akoi—all these names apply to the same plant. But the hill plant which grows spontaneously is called akoi.

5. I have had no opportunity of observing these circumstances.

6. The wild plant grows scattered, and not as dense as the cultivated bhang, the reason being cultivated bhang is irrigated and gets all the water that it requires, whereas the wild bhang gets no certain supply of water.

7. In Sind the hemp plant is cultivated—

(*a*) to produce ghundi ganja;

(*b*) not for the production of charas;

(*c*) for use as bhang;

(*d*) for fibres and seeds.

The fibres are called hemp sinee (fibres).

The hemp plant is cultivated in all parts and districts of Sind.

But charas is not made from the Sind hemp plant for sale as charas; but in cases in which fakirs cannot get charas, they prepare charas from it and use it themselves.

8. There has been an inrease in the area under hemp cultivation. The reasons are that population has increased.

9. At first the land is ploughed, cleared of weeds, and then manured. If it is new land it is manured. Seed is then scattered over it and it is watered. The plants attain full growth in four months, after which they are reaped and spread out to dry in places set apart for the purpose. Then the plants are beaten, and the leaves and seeds are separated and the stalks are thrown away. The smaller ghundis are mixed with bhang, and the big ghundis are separated and kept apart to be used as ganja. The stalks are steeped in water for about 15 days, after which they are taken out, and then they begin to yield fibres. A certain quantity of seed is kept for use for sowing for next crop. The rest is kept for sale, etc. Those who plant these plants for their own consumption do so on the edges of watercourses and use the bhang among themselves. They sometimes draw out fibres from the stalks, out of which they prepare cords and ropes for their cattle.

10. The cultivators of the hemp plant do not belong to any special class. They are of the same class as other agricultural cultivators.

11. They are not raised from the seed of the wild hemp. It is not customary to cultivate plants for the production of ganja.

12. Not in Sind, so I have learnt from inquiries. It appears that the wild plant is cultivated to produce ganja. The tops of the wild plant form ghundi ganja, which, however, is not used in trade.

13. The cultivation of the hemp plant for bhang or ganja is restricted in Sind to the following extent.

The cultivator cannot plant it without the permission of the Revenue Officers. This restriction extends to the whole of Sind. No district is free. Even with restrictions the cultivation is common to all districts with the permission of Revenue Officers. But those cultivators who have no intention of cultivating it for sale purposes do so along with other cultivation and consume its produce (whether ganja, or bhang, or ghundi) for their own use. They prepare ropes out of the fibres of the hemp, and use those ropes for tying their cattle. The cultivation of the plant for such purposes is not restricted. There is no part of Sind in which hemp plant cannot be cultivated. All the lands used for agriculture can be used for cultivating hemp. Some lands might produce abundant bhang and others scanty bhang. I have had no opportunity of enquiring into the special conditions of climate, soil, rainfall, elevation above sea level, etc.

14. In Sind all the three products are prepared, but bhang is prepared to a considerable extent; while ganja is prepared in small quantities, and charas in small quantities. Still bhang is prepared from the plant in all places; ghundi ganja is prepared in small quantities, but charas is not.

15. (1) *Bhang.*—Some persons eat raw leaves; others break the leaves in their hands and then eat them. The effects of these are equally intoxicating; but these modes are resorted to by wild people and persons addicted greatly to intoxicating drugs and they are greatly intoxicated by those processes. The ordinary process is to clear it of weeds, soak it in water, wash it well, then to pound it, mix water with it, sift it through piece of cloth, and then drink it; some drink thin, and others thick bhang. The refuse is called *jog*. Some poor men eat the *jog* in order to become intoxicated; and bhang pounded and mixed with water

and thick in appearance is called pounded bhang, and bhang so prepared is then called *panga*. Pounded bhang mixed with water and sifted, whether thick or thin, is by Hindus called *sukho*. The Mussalmans also call it by the same name; some call it sai; others call it pounded plant. This is the process which is most commonly adopted. The seeds and leaves of the plant are used as medicines in many diseases. It would be tedious to enumerate all; but suffice it to say that majums (stimulating preparations) are made from it.

(2) *Ganja.*—The ghundi ganja which is prepared in Sind is pounded and drunk in the same way as described above, and is also smoked as ganja is. Ghundis are distilled, and the essence is used as charas by some fakirs. But no charas is prepared in Sind for trade purposes. The processes given above can be distinguished.

16. Bhang is not generally prepared in houses, but if people want it they can do so in their houses, and some do so. Bhang can be prepared wherever the plant is standing. Ghundi ganja can be prepared wherever the wild plant grows, and is smoked to pass the time. But charas requires some skill to prepare it.

17. In Sind no special classes of people make these preparations.

18. All the three drugs deteriorate by keeping long. They keep good for the first six months after harvesting and produce intoxication. In the next six months their intoxicating effects diminish; after twelve months ganja and charas generally lose their effect, and they are not used except in rare cases. After the lapse of twelve months the intoxicating effects of bhang also diminish; but such bhang is very willingly used by well-to-do persons. According to physicians in Sind the effects of old bhang are cooling, and it is beneficial in cases of syphilis, and old bhang is very useful in other diseases, which are produced by excessive heat. These drugs can keep good longer if they are not much exposed. There is no means of preventing deterioration. In my opinion, from experience, I should say that all the products of the soil must grow old and lose their effect by time.

19. In Sind ganja and charas are used for smoking only and for no other purpose. Nor have I learnt from enquiries made that they are used for any purpose other than smoking; but in exceptional cases, where it is difficult to get bhang, persons addicted to these drugs pound and drink ganja in place of bhang. This is rather an exception than a rule. Therefore no accurate estimate can be made.

20. Persons of all classes smoke ganja and charas; but some classes, a limited portion of them, use it in moderation, and others, and a considerable portion of them, use it extensively. I have had no occasion to enquire what portions of each class use ganja and charas. Persons of means smoke the drugs in their houses, and poor Hindu persons smoke them in tikanas and dewaras, and Mussalmans do so in otaras and dewaras. In big towns they are smoked in special places established for the purpose. Besides there are charas and ganja houses, where poor persons and labourers can smoke the drugs on payment. But fakirs and labourers have charas and ganja always ready with them, and have also got handy the pipe in which they are smoked, so that they can use them wherever they feel inclined.

21. Flat and round ganja produce similar effects, and they are equally popular. Chur ganja consists of pieces of crumbs and is not liked. They are not used in different localities. Every kind of ganja is smoked in the same way.

22. No charas is made in Sind for trade purposes. Generally foreign charas is used for sale purposes. One kind is imported from the Punjab and is much preferred, and the Kandahari charas is less liked.

23. Bhang is commonly used for drinking; but those who are strongly addicted to intoxicating drinks, such as Gooshees, Brohees, Pathans, Hindu and Mussalman fakirs smoke bhang mixed with tobacco when they cannot get ganja or charas for smoking; but this practice is very rare.

24. People of all classes in Sind drink bhang, and roaming Hindu fakirs and owners of tikanas and dharamsalas, and Mussalman fakirs at otaras, and about one-third of other classes drink it. Hindus drink it at appointed times as a religious drink or *sukho*. Certain *mawalis* (persons strongly addicted to intoxicating drugs) sometimes eat bhang. This has been touched upon in question 15. Men first pound it, mix water with it, and sift and then drink it in the hot weather as a cooling drink. Persons of means mix almonds, succory, aniseed, coriander, other seeds, and sugarcandy or sugar with it as stimulants, and pound all together and drink the mixture. And Mussalmans, although prohibited the use of bhang by their religion, often use it for its beneficial effects.

25. The use of all the three drugs is on the increase. The following reasons have, in my opinion, contributed to this fact:—

(1) The population has increased.

(2) The present generation is more fashionable and more showy than the last generation.

(3) The use of liquor has also increased, and the contagion has spread to bhang drinkers too.

26. Few persons eat bhang. This has been touched upon in question 15.

28. (*a*) One-fourth of a tola of bhang per day.

(*b*) From one tola to 20 tolas bhang.

(*a*) Charas, and ganja. From quarter of a tola to 3 or 4 tolas per day daily. Cost to each cannot be estimated, for there are no uniform rates; hence the quantities alone are given.

29. The following ingredients are mixed with bhang. By poor people aniseed, succory, and coriander, and such other cheap drugs. By rich persons, in addition to the above, oily substances, sugarcandy, almonds, cardamons, and such other strengthening ingredients, all are pounded together and drunk. But it is not customary to do so. The above ingredients are only mixed occasionally. Bhang seeds are always pounded with the leaves.

Ganja and charas are smoked with tobacco; dhatura is not ordinarily mixed with bhang. Dhatura is a strong narcotic. Strong drinkers (who are very few), if they find that bhang and other ingredients do not produce sufficient intoxication, drink and smoke dhatura; and fakirs too, who induce the people to give their charities, eat the raw leaves and pods of dhatura. This is done to gull the people into the belief that they are Sidhs, as they can eat raw dhatura without injury. Bhang, if mixed with dhatura and drunk, produces excessive intoxication, and a man in that state loses all consciousness and all sense. Dhatura is a strong narcotic, but it has no connection with hemp drugs.

30. All details about the consumption of these

drugs are given in question 28. The sukho drink, which is made from bhang, is used by all Hindus—men, women, and boys, young and old; but on all those occasions which are mentioned in question 32, and under other circumstances also, pounded bhang is drunk by old men in moderate quantities, less by youth, and still less by boys and women—in fact, very rarely by women. All classes drink it, and it is used as a sleeping dose in the case of infants.

31. Those persons who take them occasionally for their beneficial results never contract habits of excess. Those who always take them for their benefits fall into habits of excess. But even these can break off the habit if they do not find them beneficial. They can do so if they are strong-minded, but those who are not of strong resolution cannot give up the habit. Labourers, if even habituated to the use of the drugs, cannot break it off; for if they do so, they cannot work with energy. Heavy drinkers and fakirs are convinced that these narcotics are beneficial, and they take them with pleasure. It will be difficult for such to break off the habit.

Those who drink or smoke them as a luxury and as an aphrodisiac get into a habit, and as they cannot have sexual pleasure without taking them, they cannot leave them off. But it is not the case that the practice of consuming the drugs is daily increasing. They are only the foolish and dull-witted who get into a stronger habit by taking these as an aphrodisiac; and there are other well-behaved persons who begin by taking a small quantity and stick to that quantity throughout. But those who take them as a luxury go on increasing the quantity, and at last lose all pleasure and sink into excesses.

32. Bhang alone out of the three products is pounded, mixed with water, and sifted and then drunk. This drink is called by Hindus sukho, and sugarcandy or sugar is often mixed with it. This sukho is used both for social and religious purposes, such as on marriage occasions, and at the meetings of panchayets, bands of religious singing parties, and on new and full moons, and on occasions of removing to newly-built houses, and at betrothals: on these occasions the sukho is distributed to all men and boys present. It thus forms a social duty among Hindus to use bhang; besides it is prepared when the reading of the Granth (the holy book of Guru Nanak) is completed in tikanas, and also it is necessary to prepare sukho, and distribute it on vigils and in madhis. Sanyasis call bhang the plant of Shiva (god), and use it as if bound by duty to do so. Such distributions are always moderate and never excessive. No one can get into a habit of drinking by following the above customs, and such occasional uses are never injurious, as very little is given to *sufis* (those who never take any narcotic), and they are bound to take something.

33. The use of sukho is never considered bad, for it is only used in moderation, is religious, and otherwise beneficial. In my opinion bhang is a necessity, for it is used at most religious and social gatherings, and its moderate use is beneficial. I do not think the use of bhang or charas or ganja is in disrepute. These narcotics are at any rate better than alcoholic drinks, as far I have seen the baneful effects of the latter. When such violent drinks as alcoholic drinks are in use, how can the use of these drugs (which are less expensive) be held in disrepute?

The hemp plant is not worshipped in Sind, but is called the plant of Shiva (god), and Mussalmans who are prohibited the use of any narcotic call it the "humble plant."

34. Habitual consumers would, indeed, be inconvenienced if they had to forego the use of any of these drugs. It is a well-known fact, and it is not necessary to give any reasons for it. Yet I give some parallel cases. Persons habituated to use in heat will be really enfeebled if they can get only jawari or bajri for food. When one's constitution suffers by changing one kind of food for another, it is not likely that consumers of narcotic drugs would not be inconvenienced by breaking off the habit. I have had no opportunities of ascertaining the probable number of each class.

35. The use of any of these drugs cannot be prohibited. The drug would be illicitly consumed. There is no likelihood of such a prohibition being enforced. The prohibition would undoubtedly occasion discontent among the consumers. Besides, it would cause so much loss of revenue to Government. The discontented would cause much disturbance, and would dislike the Government. The prohibition would not be followed by recourse to alcoholic drinks or other drugs. There would be a great many complaints if the use were prohibited, and people would use it illicitly, which again would lead to the commission of more offences.

36. In my opinion alcohol is not used in substitution of any of these drugs. If a drinker of bhang, after taking bhang and being well satisfied with the intoxication it gives him, takes an alcoholic drink after it, he loses all pleasure in the bhang drink.

Besides, alcoholic drinks are more expensive, and so they cannot be substituted for bhang drink. But bhang can safely and with less expense be substituted for alcoholic stimulants.

37. The effects of charas smoking are immediate; charas is more heating than ganja. In Sind the number of charas smokers exceeds the number of ganja smokers.

39. The effects of drinking bhang and smoking ganja and charas have already been given in the different answers above.

40. Bhang is prescribed by Greek and Hindu physicians for its medicinal properties. In some diseases bhang is prescribed, in other its seeds, and in others again majum (a new preparation of bhang). Bhang is used in the treatment of cattle disease, and it is very beneficial in certain cases.

41. The benefits of the moderate use of these drugs are given below; bhang aids the powers of digestion, and so does ganja, and charas if taken in small quantities.

All the three give staying-power in cases of severe exertion. Bhang is not strengthening during exposure and does not alleviate fatigue. Ganja and charas give staying-power against exposure. Bhang is beneficial in hot weather. These drugs serve the purposes mentioned in (*c*), but not in all cases. Phlegmatic constitutions would derive benefit from charas and ganja; but bilious men would be benefited by bhang drinks. But in cases of phlegm and bile bhang is taken only by fakirs, middle class people and labourers, and not by rich men, who, in cases (*a*), (*b*) and (*c*), resort to other rich preparations.

42. If not beneficial, it is harmless; but if bhang be taken in winter and ganja and charas in summer without any necessity for them, they would probably be injurious.

43. They appear to be inoffensive to their neighbours.

44. It is refreshing. It does not allay hunger. It creates an ordinary appetite. The effects last until it is time to take the drugs again. Want of the drugs produces many ill-effects, such as sleeplessness, yawning, loss of appetite, uneasiness, and longing.

45. If taken for its benefits, it produces no noxious results, physical, mental or moral. It does not injure the digestion, does not cause dysentery, bronchitis or asthma. It does not impair the moral sense, and induces no laziness, does not produce habits of immorality or debauchery. It does not deaden the intellect. It does not produce insanity.

46. It injures the digestion, produces bronchitis and asthma (charas and ganja, but not bhang); charas and ganja impair the moral sense, but not bhang. The two, if excessively used, produce laziness and habits of immorality and debauchery, but not bhang. All the three deaden the intellect. They do not produce insanity, but loss of consciousness during the time the intoxication lasts. Persons do drink bhang in order to obtain relief from mental anxiety. It is not insanity; but it is loss of consciousness that often tends to indulgence in the use of hemp drugs.

47 and 48. It does not appear to be a hereditary habit, nor does it affect the children.

49. Bhang is used as an aphrodisiac. It gives prolonged pleasure during copulation; similarly charas and ganja are used, but their effects are not prolonged, and after a short time they impair manly power. Prostitutes do use it. The use of bhang does not tend to produce impotence.

50. Excessive use of bhang produces impotency, and excessive use of these drugs prevents all those benefits which ordinarily result from their moderate use.

51. Some bad characters use these drugs moderately, others use them excessively, some habitually and others occasionally for their benefits. The moderate use has no connection with crime in general or with crime of any special character; but the excessive use has some connection with crime, in so far as intoxication deadens all moral sense and incites to the commission of offences.

52. Answers to this question have been given in question 5.

53. The excessive use of charas and ganja incites to unpremeditated crime, sometimes violent and sometimes otherwise. It cannot incite to murder. Excessive consumers, when provoked while intoxicated, are incited to commit violent crime. But this is not applicable to bhang drinkers, for bhang induces quietness of temper.

54. Some, very few, criminals do so.

55. Criminals do so, but their victims are not so much stupefied as to give the criminals opportunities to commit offences; but if the drug is given in excessive quantities the victims will be stupefied. If the victims are habitual drinkers or smokers, they cannot be stupefied without mixing dhatura; but occasional consumers will be stupefied by moderate as well as excessive quantities.

56. Bhang pounded and drunk, unmixed with others, would produce dry and cold intoxication; but if mixed with massalas, such as almonds, kernels, cardamoms, aniseed, succory, sugarcandy, and pepper, will produce wet and oily intoxication, that is, it will not produce dryness in the mouth, and, if mixed with ghee and milk, will strengthen the constitution. If dhatura is mixed with it, it would produce an unconscious state, in which one would prattle foolishly. I speak this from experience.

57. It is not usual to eat or drink ganja or charas in Sind. But in exceptional cases ganja is eaten and drunk. Particulars regarding the above have been given in questions 19 and 38. But Aghorees, a sect of fakirs, eat ganja and charas, dhatura and other poisonous drugs and tobacco without any visible effects being produced on them.

58. I cannot reply to questions from 58 to 70. Questions under this chapter can well be answered by Government officers and other interested persons.

---

27. *Evidence of the* Rev. A. E. Ball, *Missionary, Church Missionary Society, Karachi.*

1. I have completed thirteen years of service in Sind, but till within the past few weeks I have not taken advantage of any opportunities I might have had to inform myself regarding matters connected with hemp drugs, and the information I now give, such as it is, has been gathered by personal enquiry from natives, Christian, Muhammadan and Hindu.

2. Bhang only is prepared in Sind. Gahja, charas, bhang or bhang.

10. No, they are of the same classes as other agricultural cultivators.

18. All three deteriorate by keeping. No. For six months bhang keeps well, after which time it begins to deteriorate. After a year it loses its good appearance, and nearly but not all its effect. If kept well corked in a bottle or jar, it will keep good for a longer time.

19. For smoking only.

20. All religious mendicants, sanyasis, bawas, bhagats, jogis, etc., smoke ganja and charas, and many Brahmins, and all Muhammadan fakirs and the lower classes of Muhammadans, such as coolies, etc. Nearly all Pathans smoke charas.

21. Flat is preferred. Chur is also used, but not the round ganja.

22. Foreign. From Yarkand.

23. No.

24. (*a*) During the holidays such as the Dewali, Holi, etc., bhang is eaten in a sweetmeat called majum, and it is also sometimes mixed with the flour used in making a kind of food called "pakora."

(*b*) Nearly all Hindu shopkeepers are moderate consumers of bhang, and all Hindu mendicants use it; many of them I fear, to excess. Nearly all low classes, Muhammadans and fakirs also drink it. As a rule, so far as I can learn, the higher classes do not drink bhang except on special occasions.

25. So far as I can judge, from the information I have gathered, I should say there is no increase in the use of these drugs, except such as may result from increase of population.

28. (*a*) Habitual moderate consumers—

Bhang	1 paisa.
Charas	2 "
Ganja	1 "

(*b*) Habitual excessive consumers—

Bhang	1 anna.
Charas . . .	3 to 4 annas.
Ganja	3 paisa.

29. Ganja is ordinarily mixed with tobacco.

Sometimes mawalis, *i.e.*, those who use these drugs to excess, put a little dhatura into charas and ganja to induce greater intoxication. Dhatura is also occasionally mixed with any of these drugs for purposes of revenge or robbery. Bhang is sometimes made with milk instead of water and is called "dudhi bhang."

"Bhang massala," a paisa worth, which I bought at a grocer's in the bazar, contained almonds, nutmeg, khaskhas (poppy seed), ilachi (caradamoms), saunf (aniseed), and jantu; sugar is sometimes mixed with this bhang massala, and in the hot season dried rosebuds are generally added.

30. Mostly in company. Ganja and charas are nearly always, if not always, smoked in company, as the pipe is handed from one to another. In the Hindu *tikarnos* (a kind of mixed dharmsala and temple) a great deal of bhang drinking is carried on every evening. This is also true of the abodes of Muhammadan fakirs.

It is mainly confined to the male sex, though a fair number of the older women drink bhang. It is not usual for children to consume any of these drugs.

31. Yes. Yes, but not so difficult for young men, and though difficult, not impossible for any one, especially if the smoker or drinker be well fed. Yes.

32. There are certain customs observed by bhang drinkers. In a temple (tikarnu) the Bawa, after having strained the bhang through a cloth, takes the solid matter left and squeezing it into shape places it on the ground before him as a representation of Shiva (the linga). Having filled his lota, he sprinkles a little of the bhang on the linga, saying "Lena Shiva Sambu, piyala taiyar hai." "Take, O Shiva, the cup is ready." He then gives some to the rest and as a rule each one before drinking says "Namo Narayan maha purs." "In the name of Narayan (Vishnu) the great creator." Such drinking is generally temperate, but sometimes, on holidays, it becomes excessive.

33. Amongst respectable people the use of ganja and charas is in disrepute, simply so far as I can gather because of its intoxicating effect. I have given a few common sayings about these drugs, from which may, I think, be gathered the general opinion of the majority in reference to their use. I am told that there is no custom of worshipping the hemp plant.

A few common sayings in regard to the use of hemp drugs. These were taken down as repeated by ganja smokers and others.

Ganja aur suka pipe se hurmat gayi,
Láj sharm gayi chhut,
Anaj bechke lae ganja,
Gayi haiye ki phut ?

Gayi haiye ki phut,
Kina yeh bina bichare,
Bina bichare sau kare,
So pachhe pachtae.

I am told that the first verse is a question asked by a wife from her husband, whose answer is given in the second verse. The meaning, roughly, is as follows :—

Through smoking ganja and tobacco character is lost and modesty destroyed. Does not the heart of that man break who sells corn to buy ganja ?

My heart was broken indeed. I did it without thought, and all who act without thought will have to repent.

Suka savai ganja ka bhai,
Manga susra aur khawe jamai.

Tobacco and bhang, the brothers of ganja,
The father-in-law begs and the son-in-law eats.

This has been explained to me to mean that the use of these drugs brings a father-in-law to beggary and reduces the son-in-law to such a state that he is content to sit in the house and eat.

Suka piwe surada,
Guraku piwe lal,
Ganja piwe lakhpati,
Urawe ghar ka mal.

The last two lines mean—Let a wealthy man smoke ganja and he will squander his property.

35. Hardly. Prohibition would almost certainly lead to illicit consumption.

In the case of bhang I am assured by natives that if bhang drinkers could not get it, they would drink "pust," poppy seeds, prepared with water like bhang, and in case they could not get "pust," they would drink "bojo," a fermented liquor made with wheat, rice or other grain.

37. Charas intoxicates more quickly than ganja.

40. There is a difference of evidence, but I gather that bhang is recommended in cases of venereal disease and that ground into powder it is useful for external application to piles. For the same disease a pinch of powdered bhang with an equal quantity of sugar is eaten by some in the morning. Tincture of charas and charas pills are said to be good for cough and asthma.

When cattle refuse their food, bhang is often given to them to produce appetite. When a calf dies and the cow refuses to give milk when another calf is brought, bhang is given and the cow under the intoxicating influence of the drug gives milk and never refuses to do so afterwards.

41. (*a*) Bhang creates appetite, helps digestion, and, used moderately, may be beneficial.

(*b*) Bhang may be useful, but I doubt whether in the long run a bhang drinker would do more work than one who abstains. It does alleviate fatigue I am told.

(*c*) No.

Charas and ganja are not beneficial even when used moderately.

42. All I have spoken to agree in saying that the moderate use of bhang is harmless, but that such use of ganja and charas is harmful.

43. As a rule they are inoffensive.

44. The smoking of charas and ganja quickly produces intoxication, bringing a sense of pleasure to the smoker.

Bhang is cooling and refreshing and does not by itself, as usually taken well diluted with water, produce intoxication. Here in Karachi some of the shop-keepers place two large earthen vessels outside their shops, one containing bhang, the other water, and any Hindu passer-by is at liberty to drink. This is considered a work of merit. Because of its cooling, refreshing effect, it is more largely consumed in the hot season than in the cold.

Bhang drinking produces appetite. The effect lasts about half an hour.

In the case of the moderate habitual consumer, and more so in the case of the excessive habitual consumer, the want of gratification produces a longing and uneasiness, such as aching in the limbs and disinclination to talk or work.

45. I have never known a case of insanity produced by the use of these drugs, but one of our Christians, a native of Ahmedabad, tells me that he knew a native Christian who died mad through smoking ganja and charas.

47. An experienced native doctor whom I questioned on this subject gave it as his opinion that habitual moderate use of these drugs does not affect the children of the consumer.

49. The sweetmeat majum in which bhang is mixed is eaten by some as an aphrodisiac. I questioned a native doctor and others on this subject, and I gather that prostitutes use bhang for this purpose. An English official of high standing and long service in Sind told me that he is quite convinced that the use of these drugs makes the increase of population less rapid than it otherwise would be.

50. From native sources I gather that the excessive use of any of these drugs does produce impotence.

52. From what I gather from native sources, I should say that a large proportion of bad characters are excessive consumers of these drugs.

55. Yes, I am told that they sometimes do so. Yes, a native doctor told me of the case of a young man, unused to bhang drinking, who had been completely stupefied by bhang and whom he had been called to see a few weeks ago.

56. Mawalis (drunkards) use dhatura with these drugs to induce greater intoxication, and very poor people sometimes mix dhatura with these drugs, as they can get it (dhatura) for nothing, and can thus become intoxicated cheaply.

68. So far as I can gather, there are no houses or shops licensed for the sale of these drugs where they may be consumed on the premises.

28. *Evidence of* Mahomed Laik, *Mukhtarkar of Hyderabad.*

1. I have seen the cultivation of bhang plant. I have made enquiries from bhang cultivators, as, for instance, from Fazul of Jam Tanda and other cultivators, and from tapedars and bhang merchants.

2. These definitions will do for my province. Each of these products is known here by the names given in the question.

3. I do not know in what districts the hemp plant grows spontaneously; but I hear that it grows in abundance spontaneously in the Punjab and Baluchistan, owing to the fall of snow and rain.

4. It is known by five names:—

(1) *Akoe.*—It grows in hills and has brown leaves, and not green leaves like Sind bhang, and is more intoxicating than the Sind plant, *i.e.*, five times as strong.

(2) *Sabzi*, which is the ordinary bhang.

(3) *Pani*, which is without seeds. It is seedless (or khasi), and is very intoxicating. Ganja is made from it.

(4) *Nangin.*—It is so called because the cultivators kill serpents and bury them in the ground, and then cultivate the plant on the ground with the object that it may become more intoxicating.

(5) *Bubakain, i.e.*, produced in Bubak, taluka Sehwan, zilla Karachi. It is the best bhang in Karachi. It is the best bhang in Sind.

(6) It is also called the plant of Shiva god. This is not a different kind of bhang but the same, because some Hindus call it Shiva's plant.

(7) *Bijia.*—Sanyasis and other Hindu fakirs call it bijia.

5. Autumnal rains, snow and sea-water aid the growth of the wild hemp, which generally grows near sea-water.

6. I cannot say anything, as the plant does not grow here.

7. The hemp plant is cultivated,

(*a*) and (*b*) No.

(*c*) Yes.

(*d*) For seeds.

It is cultivated in taluka Halla, zilla Hyderabad, in taluka Sehwan, zilla Karachi, and the produce must be above 3,000 maunds. It is cultivated in limited quantities in other parts of the country, but that is especially reserved by cultivators for their own use, and is not sold to farmers, and about 500 maunds of this kind are raised.

8. Recently there has been a decrease in the area under cultivation in the Halla taluka, for the cultivators find it more convenient and easier and more profitable to cultivate other cereals. Formerly the cotton cultivation was less there than at present, because now, on account of the brisk cotton market, more land is brought under cotton cultivation and less under hemp cultivation. Formerly about 1,000 or 1,200 maunds of bhang were produced; now only 100 or 150 are produced.

9. The methods of hemp cultivation are generally the same as are used in cultivating other products, *i. e.*, the land is first cleared of weeds, irrigated, ploughed, and then seeds are scattered over it. The hemp cultivation requires more water and more care than other cultivations.

10. Bhang cultivators do not form a special class. They are of the same classes as other agricultural cultivators; but in Khebar and Bubak the cultivators are mostly Hindus.

11. No plants are cultivated for the production of ganja in this province; but raw ganja is made from the cultivated plant and not from the wild plant.

12. No wild plant grows here, nor is ganja prepared in this province; therefore I cannot say where the wild plant is cultivated for the production of ganja. I cannot name the districts or the tracts in which this occurs. Nor can I say anything about the extirpation of the male plant in such cases; but in this province the male plant is found in the hemp cultivation, which is made for trade purposes: it is extirpated and reserved by the cultivators for drinking purposes.

13. There is no restriction in this province, and I cannot say in what other districts such a restriction is in force, and why those districts were select-

ed, and why there is no restriction here, because no hemp is cultivated for the production of ganja. I hear that ganja is cultivated in Bombay, Panvêl, and in Cutch. If it were cultivated here it can be done; but people do not know how to cultivate it.

14. The following products are prepared from the hemp plant:—

(*a*) No ganja is prepared.

(*b*) No charas is prepared.

(*c*) Bhang is prepared.

Bhang is produced in Khebar and Mehar, taluka Halla, zilla Hyderabad, and in Bubak, taluka Sehwan, zilla Karachi, to the extent of about 3,000 maunds.

15. The wild plant does not grow here at all; hence I cannot give any particulars regarding preparations from it for smoking, eating or drinking purposes. As regards the cultivated plant—

(*A*) It is not smoked; but *ghundi* bhang is often smoked as ganja along with tobacco.

(*B*) Bhang is not eaten; but *awadhut* fakirs powder leaves in their hands and eat them raw. Majum is also made from bhang. It is first boiled in water. The water is sifted and mixed with sugar, after which it dries into a solid mass. It is then cut into small pieces and sold.

(*C*) The plant is reaped, dried, and beaten. The leaves, seeds and stalks are then separated. Leaves and seeds are used in drinking generally.

16. Bhang is not prepared in houses, but is prepared where the plant grows. Ganja and charas are not prepared in this province, only *ghundi* ganja is prepared.

17. In this country only bhang is prepared from the hemp plant, and it is so prepared by those who cultivate it (Hindus and Muhammadans).

18. All the three drugs deteriorate by keeping. They lose their effects in time. With ordinary care these drugs do keep good for two or three years, after which they lose their intoxicating effects, notwithstanding all possible care. The causes are the natural decay of all things produced from earth. No special means are adopted to prevent deterioration.

19. Charas and ganja are used only for smoking.

20. In Sind persons of Kor classes and Pathans smoke them. Besides sanyasis, nangas, suthrias, kaheris and other fakirs smoke them, and they belong to low classes of people.

One-fourth of Pathans, half of sanyasis, and about half of nangas and suthrias. No special places are appointed for smoking them; but it is greatly done in otaras, madhis, tikanas, and dharmsalas; occasionally in houses and jungles.

21. Flat ganja is preferred; but poor men sometimes use chur also, for it is cheap. No special places are used for smoking it.

22. Foreign charas is used. It is imported from Kandahar, and is called Yarkand charas. It is first imported into Amritsar, whence it is imported into Sind.

23. Bhang is not used for smoking, but strong ganja smokers smoke the *ghundi* at times when they cannot get ganja; but I cannot say in what localities and what classes of persons smoke it, and they must be very few.

24. Bhang is not ordinarily eaten by any class of men in any locality; but in rare cases it is eaten by *awadhut* fakirs; and the proportion of such eaters cannot be given. But bhang is drunk by almost all classes of people, except Europeans, Parsis, and Boras. It is generally in otaras, madhis, tikanas, and occasionally in houses. About 33 per cent. are bhang drinkers.

25. The use of bhang and charas is increasing; but the use of ganja is on the decrease. The reason of the decrease in the consumption of ganja is that it does not produce instantaneous intoxication. People have therefore left off ganja and taken to charas. The use of bhang has increased, because it is so cooling, and because more is used in company.

26. The proportion of the consumers cannot be accurately fixed; but the following are the approximate figures:—

(*a*) 90 per cent.
(*b*) 50 per cent.
(*c*) 20 per cent.
(*d*) 10 per cent.

27. The consumers are mainly taken from the following classes:—

Sanyasis, suthrias, bhagats, machhis (fishmongers), mirbahars, and kanjars (followers of prostitutes), boatmen.

The taking of opium, bad company and debauchery lead to this practice. Sometimes in the beginning it is taken as a medicine, and then it grows into a habit.

28. (*a*) Bhang 1½ tolas, and cost six pies.

Charas 1½ masa, cost 9 pies.

Ganja 3 masas, and cost six pies.

29. (*a*) Tobacco is mixed with charas and ganja.

(*b*) Coriander, aniseed, cardamoms, sugar, almonds, and occasionally milk are mixed with bhang. The object of mixing the above things is to get more pleasure; but nothing is mixed in bhang which is offered for sale.

30. I cannot say what quantities are consumed in solitude and what in company. The use of it is chiefly confined to the male sex. I cannot say in what time of life it is used. Some boys and women, too, consume bhang, &c.

31. The habit is easily formed, and it is rather difficult to break off. The moderate habit develops into the excessive if the quantity is daily increased.

32. There are social customs in regard to the consumption of bhang alone. When a party of Hindu bhagats or sangats assembles bhang is used. The use is only moderate. It is not likely that such a custom will lead to the formation of a habit, or is otherwise injurious. The use is not considered as essential.

33. The consumption of ganja and charas is considered to be bad. The public opinion in regard to the practice is that these two drugs should not be used at all. I have never seen a respectable man using either. I think the use of any form of the narcotics is in disrepute. The smokers present a wretched and miserly appearance. They grow irritable if they cannot get it at their fixed time, and are led to commit both sin and offence.

It is publicly known that the use of bhang is prohibited according to Muhammadan law; but its use is allowed among Hindus, and it is not used in excess. Besides Hindus use the bhang as an offering to Shiva god, for which it is called Shiva's plant. But I, on my part, think that the use of bhang too is disreputable, for it is a narcotic. Very few drinkers would stick to the original quantity, but a larger number, out of mere luxury,

would go on increasing it gradually, and would fall into excess. Such men would not satisfactorily discharge their ordinary duties, and would always be lazy, dull, and timid, and would lose all their energy and pluck.

34. It would be a serious privation to consumers to forego the use, *i.e.*, fakirs, suthrias, nangas, sanyasis, bhagat, and the Mussalmans of otaras and the Hindus of tikanas. Habitual consumers are so habituated to them that they cannot eat with any good appetite, nor get any sleep, nor get free motions until they use the drug. If such men were to forego their use they would fall ill. I cannot give any idea of the probable numbers of each class.

35. It would be difficult to prohibit the use of bhang at once. It is probable that the drug would be illicitly used. It would be difficult to enforce prohibition. The prohibition would cause serious discontent among the consumers; but it is not likely that the discontent would amount to political danger. It is possible that people would think of resorting to alcohol or other drugs.

As for charas and ganja, I am of opinion that they can be prohibited, and there would be no difficulty in so doing; but in that case bhang would be consumed to a larger extent.

36. There is no reason to think so.

37. I do not smoke ganja and charas, and neither have I any experience of them; but from enquiries made from smokers, it appears that the effects of charas smoking are in no way different from those of ganja smoking, except the smoking of charas produces instantaneous effects, for which reason it is preferred to ganja.

38. The difference cannot be known.

39. I cannot answer this question, as I have no experience.

40. Bhang is often prescribed in syphilis and in piles. No further particulars can be obtained. I have not heard any of these being used in the treatment of cattle-disease.

41. I do not know that the use of charas is in any way beneficial in its effects. But bhang is sometimes beneficial in (*a*). I cannot say anything as to (*b*), (*c*), and (*d*).

42. They are not harmless, and I have given particulars under answer to question 33.

43. They become offensive to their neighbours if they do not get the drug at their proper time.

44. It is refreshing. It produces moderate intoxication. It does not allay hunger. It creates appetite. The effect lasts for one hour or two. There are no after-effects. The want of the drug produces longing.

45. The habitual moderate use will produce noxious results. If the moderate habit develops into the excessive, all the effects given in answers to question 45 are produced; and if the drug is not used at the proper time, it is in every way injurious. Therefore, it is not good to make it a habit. But, if not otherwise necessary, the moderate use will not produce any bad effects. Further particulars under this question can better be given by doctors or physicians.

46. It would produce more noxious effects.

47 and 48. No.

49. Yes, these drugs are used as an aphrodisiac. Prostitutes do use them as such. The use of the drugs for this purpose is undoubtedly more injurious than its use as an ordinary narcotic.

Reasons.—It would bring on debility and laziness, and the moderate habit would develop into the excessive, and the manly powers would be impaired. The excessive use of hemp drug tends to produce impotence.

50. Answer to this question is given above.

51. Bad characters also use these drugs as others do. Such use has no connection with crime in general.

52. The excessive use is likely to produce affrays or quarrelling.

53. I do not know that the excessive use of these drugs would incite to unpremeditated crime; but in cases of disagreement, violent offences have been committed.

54. I do not know.

55. I do not know if criminals induce their victims to partake of these drugs, and so to stupefy themselves without admixture.

56. Coriander, aniseed and sugar are mixed with bhang, and thereby its intoxicating effects are lessened; but if dhatura is mixed with bhang, the intoxication is so much increased that it will induce an unconscious state. I have seen and heard of such cases.

57. I cannot answer this question.

58. The system is working well under me, and requires no improvement.

59. This requires no reply.

60. Ganja is not made in this province; hence I cannot answer this question.

61. Charas is not produced here. I cannot, therefore, answer this question.

62. The preparation, sale and transport of bhang is under control; but the cultivation is not controlled. Hence people cultivate it for their drinking purposes; but the same, when prepared or used, is an offence, and the planters, if the facts are proved against them, are convicted. Hence persons get opportunities of increasing the use of the drug, and the Government revenue suffers. Its cultivation also should, therefore, be prohibited, except under a license. All opportunities for the increase of its use would disappear, and no offences would be committed, and Government revenue would not suffer.

63 and 64. I have no objection.

65. I see no reasons for alteration in the various taxations.

66. I see no reason to alter the present mode.

67. I have no objection in regard to this.

68. I can form no opinion.

69. The wishes of the people are not consulted before opening a shop, but they are considered.

70. There are no facts regarding the importation or smuggling of these drugs from Native States to which attention may be drawn. If such drugs are illicitly imported or otherwise smuggled, they are properly inquired into and dealt with.

29. *Evidence of* PRIBHDAS SHEWAKRAM ADVANI *Secretary, Band of Hope, Hyderabad, Sind.*

1. I have visited the hemp drug shops, and made enquiries on the subject.

2. The definitions appear to me to be correct.

Charas and ganja are not manufactured in Sind. They are imported. The former from Yarkand *viâ* Amritsar, and the latter from Cutch and other places.

Bhang, charas, and ganja. Bhang is also locally called sai, sabzi, Shiva-ji-buti (root), pani, bijaya, nanigan, and bahakain.

3. It grows on the hills west of Sind (Beluchistan) and in the Punjab.

4, 5 and 6. I cannot say.

7. (*a*) and (*b*) No.

(*c*) and (*d*) Yes.

Mostly in Bubak in the Sehwan taluka (Karachi district) near Manchar lake; also in the village of Khabra and Mahra (Hala taluka, Hyderabad district), and in the taluka of Nowshero Abro (Shikarpur district).

8. I am informed that in the Karachi and Shikarpur districts there was increase owing to favourable inundation last year. In the Hyderabad district there has been considerable decrease in the area under cultivation.

9. The ground is at first cleared of jungle; then manured, watered, and ploughed. Hemp seeds are then sown broadcast, and when they germinate and the plant reaches maturity, it is reaped, and then dried in the sun. After it is dried, it is thrashed and used as bhang.

10. No; they are of the ordinary agriculturist class.

11. Ganja is not produced in Sind.

12. Not in Sind, as far as I am aware.

13. Hemp is not cultivated in Sind for the production of ganja,

and (*b*) No.

(*c*) Yes.

About 3,000 maunds of bhang in the Karachi district; about 500 maunds in the Hyderabad district. About the Shikarpur district I do not know.

15. *Vide* answer to question No. 9.

Bhang is only drunk. Very few persons when they cannot get charas and ganja smoke the dried flowering top of the hemp plant grown in Sind for use as bhang with tobacco. In some exceptional cases the tops are eaten also.

16. (*a*) No. Generally by the cultivators in their fields.

(*b*) Yes.

(*c*) We import ganja and charas into Sind from other places, and therefore we have no information about its production.

17. By the agriculturists.

18. Bhang will not deteriorate by keeping for three years if proper care is taken and exposure prevented; charas for two years, and ganja for three years.

19. Yes, for smoking.

20. Charas and ganja are used by both Hindus and Muhammadans, but chiefly by nomadic fakirs, jogis, etc., in (Hindu) Shivite temples, and (Muhammadans) otaras and baithaks.

21. Flat ganja is generally used in Sind for smoking. Poor persons use chur ganja because it is cheap.

22. Foreign. It is imported from Yarkand *viâ* Amritsar.

23. *Vide* answer to question 15. Not as a rule. A few use it, especially fakirs when they do not get ganja in time.

24. Hindus and Muhammadans use it. They drink it about 80 per cent. Hindus and 50 per cent. Muhammadans.

25. Ganja on the decrease and charas on the increase. Ganja takes more time to produce the necessary effect than charas, and hence it is not smoked by many.

26. Bhang—

per cent.

(*a*) 70
(*b*) 20
(*c*) 70
(*d*) 30

Approximate.

I cannot give the exact proportion of the consumers of charas and ganja.

27. Bhang is drunk by all classes, and by the rich and the poor, and especially by fakirs and ascetics.

Charas and ganja are smoked by fakirs and wandering tribes who live by begging.

28. The quantity varies greatly, ranging (bhang) from ¼ tola to 10 tolas, (charas) from ⅛ tola to 1 tola, and (ganja) from ¼ tola to 1 tola. 1 tola of bhang costs 4 pies. 1 tola of charas costs 6 annas. 1 tola of ganja costs 2 annas.

29. Ordinarily water is mixed with the bhang. But on festival days, Holi and Shivaratri, sugar-candy, almonds, cardamom, aniseed, and other spices are added to it, and then it is termed *panjtul*. Sometimes bhang is first soaked in water, put into a rag, and then macerated after it is heated over the fire. Charas and ganja are ordinarily smoked with tobacco.

30. (*a*) Same in either case.

(*b*) Generally the male sex. Old females also use bhang. Charas and ganja generally by males and some prostitutes.

(*c*) No, not as a rule.

31. (*a*) Yes, in company.

(*b*) Yes in case of bhang if the moderate consumers become excessive drinkers, but charas and ganja smokers feel difficulty in breaking off even the moderate habit.

(*c*) Yes.

32. On certain festival days, such as (Hindu) Holi and Shivaratri and (Muhammadans) Mohurrum, a large quantity of bhang is prepared, especially in temples and otaras, and offered to all comers. It is very much diluted with water, and is drunk as a refreshing draught. It is very temperate and will not lead to excess. There is no such custom as regards charas and ganja.

33. There is no public opinion in regard to the use of bhang. The followers of Shiva (Shivites) look upon bhang as sacred, because their god (Shiva) was, they say, fond of it, and took large quantities of it.

Charas and ganja is in disrepute with the Sindhis because it produces cough, asthma, and sometimes impotency.

34. Yes, to habitual excessive consumers it will be a privation.

35. If prohibition be ordered, other poisonous drugs, such as dhatura, etc., would be used by the excessive consumers, or the drug would be used illicitly. It would cause discontent, but not such as to amount to political danger. The well-to-do will use liquor, and fakirs dhatura, aconite, etc.

36. No.

37. I cannot say. Ganja takes more time than charas to produce the necessary effect. I am informed that charas and ganja smoking has injurious effects on the nervous system.

38. I do not know. Round ganja is not imported in Sind.

39. Bhang is generally drunk. When it is smoked, it serves the purpose of ganja and charas (*vide* answer to question 15). Ganja and charas are smoked. Some fakirs eat charas, and it is said that it is not less injurious in that form.

40. Yes, bhang only. The twigs are also used with other medical drugs, and given in piles and to check diarrhœa. Yes, bhang only.

41. (*a*) Yes; bhang only.
(*b*) I do not know. Charas and ganja are, however, stated to give the staying power. } Moderate use of bhang beneficial, but not that of charas and ganja.
(*c*) No.
(*d*) I cannot say.

Vide answer to question 27.

I refer to moderate habitual use of the drugs.

42. Yes, of bhang harmless, but not of charas and ganja.

43. Yes.

44. Bhang is used as a refreshing draught, as a tonic to help digestion, and by old persons to bring on sleep. Bhang, charas, and ganja produce intoxication. The effect lasts from one to three hours. It varies according to constitution and temperament. The after-effects of charas and ganja are cough and asthma, produces longing, and in some cases uneasiness as well.

45. (*a*) I think not.

(*b*) and (*c*) No.

(*d*) The use of charas and ganja causes bronchitis and asthma.

(*e*) and (*f*) No.

(*g*) I do not know any case.

46. (*a*) It causes loss of strength, trembling and mental weakness, and enfeebles the constitution.

(*b*) Yes; it causes loss of appetite.

(*c*) No. The use of charas and ganja causes bronchitis and asthma.

(*d*) It induces laziness.

(*e*) It has in some cases produced insanity. Reliable information on the point can be had from the returns of the Lunatic Asylum, Hyderabad, Sind.

(*f*) I do not know any case.

47. No.

48. Not as a hereditary habit.

49. In regard to charas and ganja only.

(*a*) and (*b*) Yes.

(*c*) Yes; it produces more weakness.

(*d*) No.

50. (*a*), (*b*) and (*c*) Yes.

(*d*) Yes; it enfeebles the system.

51. (*a*) and (*b*) No.

52. (*a*) They are as a rule habitual excessive consumers.

53. I think it does. Some years ago a sepoy at Hyderabad ran amuck, and it was believed that it was owing to his having indulged in the excessive use of bhang.

54. I think they are.

55. (*a*) Sometimes a preparation of bhang called majum is used for this purpose.

(*b*) I have been told that complete stupefaction can be induced by administering any of these drugs without admixture in sufficiently large doses.

56. (*c*) Dhatura is sometimes used as one of the ingredients in the preparation of majum (bhang preparation).

57. Not in Sind, as far as I know.

58. The present system is based on Bombay Abkari Act V of 1878 and the rules framed thereunder.

59. It is capable of improvement only in one direction. There should be local option. No shop should be allowed to be opened until the wishes of the people living in the neighbourhood are consulted, and there should be also supervision over the kind of hemp drugs used by the retailers.

60. Ganja is not produced in Sind.

61. Charas is not produced in Sind.

62. If it can be arranged, cultivators should sow hemp seeds and reap the crop after getting the necessary permit from revenue officers, which is not the case now.

63. Perhaps it will be as well to fix the maximum price for one tola of each drug, and to bind the retailer not to sell more than 5 tolas of bhang, 1 tola of charas, and 1 tola of ganja to one person in one day.

64. No.

65. The privilege is put up to public auction.

The system as regards the levy of duty on alcohol is different. There is a distillery at Kotri, and the duty which is levied on all liquor manufactured there varies according to strength.

66. No.

67. None, but the alterations proposed may be considered.

68. There are no such shops, but where they exist they should be closed.

69. No, but they should be.

70. I do not know any.

Appendix.

BY A MEMBER OF THE BAND OF HOPE, HYDERABAD, SIND.

I am not aware that charas and ganja are prepared anywhere in Sind, but they are used for smoking, though their use is confined to the lower

orders of the people, especially fakirs, both Hindu and Muhammadan. Both these are very deleterious, and injuriously affect the system. Habitual smokers of ganja and charas lose their energy and become useless drones. I have even heard of cases in which the immoderate smoking of ganja has led to insanity. I think more restrictions on the consumption of both these things will lead to very salutary results.

Bhang is in common use among the people of Sind. All classes of people, both high and low, indulge in it; but most people drink a weak, watery preparation of it called *pango*. This is taken as a cooling drink, and persons subject to piles take it either with or without some other medicine. Bhang is said to have soothing and digestive properties. In the case of habitual drinkers the craving for it is so strong that until it is satisfied nothing on earth would give them any pleasure, and they become irritable and even violent without it. The excessive use of it weakens the system and emaciates the body.

Bhang is largely grown in Bubak in the Karachi district and in the Mir's territory, and in small patches in many parts of Sind. The cultivation of it should be confined to particular localities which may be favourable to its growth, and its growth elsewhere, even in very small quantities, strictly prohibited.

The rate at which it is sold by licensed retail vendors should be uniform, and should be fixed by Government, and not left to the option of the vendors as at present, as the practice of selling it at different rates to different persons results in discontent.

The privilege of possessing bhang up to half a seer by any one person is very often abused; for instance, a person going to a fair and finding that bhang can be had there at a cheaper rate than in his own village buys two seers of it, and as he cannot carry more than half a seer, he induces his three companions to carry half a seer each for him as far as his village, and thus he successfully evades the law. The rules as regards possessing and carrying bhang should be so modified as to preclude the possibility of abusing this privilege.

I agree in the opinions expressed in the above.

PRIBDHDAS SHEWAKRAM ADVANI,
Secretary, Band of Hope, Hyderabad, Sind.

---

30. *Evidence of* TIRITHDAS HASRAJMAL, *Member of the firm of Denmal Sachanond, Karachi.*

19. So far as I know, ganja and charas are often smoked by fakirs, *nangas* in *tikanas* and by roaming fakirs and other low class Mussalmans and Hindus.

20. Sudras, low class people, Suthrias or fakirs, and wandering fakirs, and Mussalmans smoke ganja and charas in *otaras* and three-fourths of Hindu awaghars and jogis smoke them.

21. Round ganja is preferred.

22. Foreign charas in used. It is imported from Amritsar, Yarkand, Ladak and Bokhara.

23. In my experience bhang is smoked only when charas or ganja cannot be had, and then it is smoked with tobacco.

24. Half Hindus and Mussalmans drink bhang. If the habitual drinkers cannot get bhang pounded and sifted, they eat it raw and drink water after it. Often low class Mussalmans in *otaras* and illiterate Hindu fakirs in *tikanas* do this.

25. The use of bhang, charas and ganja is increasing.

26. (*a*) Bhang, 25 per cent.

Ganja 7 per cent.

Charas, 5 per cent.

(*b*) Bhang 5 per cent.

Charas, 2 or 3 per cent.

Ganja 3 or 4 per cent.

(*c*) Bhang, 10 per cent.

Charas and ganja, 1 or 2 per cent.

(*d*) Bhang, 5 per cent.

Charas or ganja, 1 or 2 per cent.

27. Sowcars, merchants and retail shop-keepers and pensioners use bhang in moderation.

Wandering fakirs and low class men use bhang, charas and ganja in excess.

28. (*a*) Bhang drinkers—$\frac{1}{8}$ of an anna, $\frac{1}{2}$ of tola.

Ganja—$\frac{1}{4}$ of a tola, 6 piés.

Charas—$\frac{1}{8}$ of a tola, 1 anna.

(*b*) Bhang—$\frac{1}{8}$ of a seer, cost 2 annas 6 pies.

Ganja—2 tolas, 4 annas.

Charas—1 tola, 6 annas.

29. Ganja and charas is smoked along with tobacco. Bhang is mixed with the following ingredients and drunk as a cooling mixture:—(1) poppy seeds, (2) cardamons (3) aniseed, (4) coriander, (5) succory, (6) dried rose leaves, (7) pepper, (8) melon seeds, (9) sugarcandy, (10) almonds, (11) nutmegs. (*a*) To make it cooling the following are added:—(1) poppy seeds, (2) aniseed, (3) coriander (4) pepper and (5) melon seeds. (*b*) To make it strong the following are mixed with it:—(1) cardamom, (2) coriander, (3) succory, (4) dried rose leaves, (5) sugarcandy, (6) milk (7) almonds, (8) nutmegs. Dhatura is mixed with bhang with the object to bringing on stupefaction, so that the victim may be easily robbed.

30. Bhang is drunk by the male sex mixed with other ingredients. But it is often drunk by women and children in the hot weather in towns and villages as a cooling beverage, and it is customary both in towns and villages to keep vessels full of bhang to be distributed in charity. Bhang and charas and ganja are used by people in larger quantities when in company than when alone.

31. The habit of drinking bhang is easily formed and is easily broken off. The moderate use of it does not lead to a habit. Excessive consumers will find it difficult to break off the habit quickly.

32. Low class men look upon the use of bhang as a necessity and a custom. In Karachi Hindu Sirais prepare the bhang drink on marriage occasions and distribute it along with sweetmeats.

33. It is considered as a religious custom. On Shivaratri (*i.e.*, Shiva's night) bhang is made into a drink and first offered to the Linga and then distributed to all those who visit the god. The hemp plant is called Shiva's plant, and it is not considered injurious to use bhang moderately. Of course, habitual excessive consumers will fall into excess.

It is thought by some that the moderate use of bhang is beneficial. Some think that it should altogether be abandoned. Ganja and charas are dangerous both to life and health.

34. If the use of bhang were foregone, it would cause much inconvenience and difficulty. Several persons think that it is necessary to use bhang as a cooling drink. It aids the power of digestion and creates appetite.

35. In my opinion the prohibition of bhang would occasion discontent. The prohibition would not be followed by recourse to alcoholic stimulants, but on the contrary alcohol consumers often forego alcohol in favour of bhang. All the three can be prohibited without any fear of political danger, although it will at first occasion discontent. Ganja and charas consumers can give up these two drugs in favour of bhang drinking. I know this from experience.

36. No; on the contrary, the use of alcohol is to a certain extent foregone in favour of bhang drinking.

37. The effects of charas smoking are more intoxicating and more injurious than those of ganja smoking.

38. Round ganja is preferred to the other two kinds, for it is more intoxicating.

40. Bhang is prescribed by native physicians along with poppy seeds as an antidote against cold in the head, and bhang unmixed with other ingredients is also prescribed; and it is also used in the treatment of cattle disease.

41. Bhang is beneficial in aiding the powers of digestion. Charas and ganja give staying-power in cases of severe exertion and of exposure. This is because of their intoxicating effects.

42. The use of charas and ganja should be put a stop to, for moderate use leads to excess. Hence cough and asthma are produced, and the eyesight is affected and the manly power is weakened. Even moderate consumers suffer from cough, asthma and heart-burning. The moderate use of bhang is not at all injurious.

43. If the ganja and charas smokers do not get the drugs at their usual time for taking them, they will prattle foolishly.

44. The immediate effects of ganja and charas are as follows. The smoker gets perfectly silent and his eyes become red. If the habitual smoker takes the drug at the proper time, it creates appetite. The effect lasts for about one hour or two hours; after the effects are gone, he falls into yawning and laziness and gets thirsty. Bhang drinking has an intoxicating effect which produces appetite, which lasts for two or three hours.

45. Bhang drinking produces no noxious effects, but ganja and charas produce asthma and cough, etc.; the eyesight is weakened and the manly power is diminished.

Charas.—Ganja and charas smokers appear black and feeble. The use of these two drugs deadens the intellect and excessive use of bhang also deadens the intellect.

46. The moderate use of charas and ganja is injurious; necessarily the excessive use is more injurious.

47. It does not appear to be a hereditary habit.

48. Bhang, charas and ganja taken excessively are very injurious.

49. Yes. Some use bhang as an aphrodisiac. Prostitutes also use it for the above purpose. Charas and ganja produce impotence, but bhang does not.

50. The excessive use of all the three drugs is very injurious. See question 45.

52. See question 50.

53. Excessive consumers, if prevented from taking the drugs, prattle foolishly.

54. Consumers of these drugs are timid rather than violent like alcohol drinkers. Hence no violence is committed by them.

55. If any of these drugs be administered to a person who is not in the habit of taking them, it is no wonder that he can be robbed, for he loses all consciousness.

56. The bhang drink prepared on the night of Shiva is mixed with dhatura and then offered to the god, and bhang mixed with dhatura is given to any one whom it is intended to plunder or stupefy, and sometimes the following ingredients are mixed with it, in order to make it more intoxicating:—Juari, gram, sesamum seeds, chhabar grass and grain.

58. It is not necessary to improve it.

59. The farm is ordinarily given to one man, and for that reason he buys very bad charas and ganja at very low rates and sells them high. For this reason the smokers are much injured, and the bhang and charas and ganja farm should be regulated on the same system as opium and liquor now are, *i.e.*, small licenses should be given to many licensees.

65. The taxation on ganja, charas and bhang should be raised, for thereby they would sell very dear and hence few will use them.

69. The wishes of the people of the neighbourhood should be consulted before opening a shop, for the purchasers of these drugs being often illiterate and ignorant and foolish persons, prove very offensive to the neighbourhood.

---

31. *Evidence of* Pesumal Narumal, *Farmer and Merchant, Hyderabad.*

1. I am a farmer of bhang. I have been taking farms for many years, either myself or in partnership with others. I have money dealings with Haris (cultivators). I am for the year 1893-94 the farmer of bhang, charas and ganja of the Thar and Parkar district. In this business I have had many opportunities of obtaining information regarding the matters with regard to which I am now required to answer questions.

2. The above definitions will do for bhang, but after the bhang is pounded, mixed with water, and sifted through cloth, it is called sukho, pango, abo, bijia, sai and sabzee. The dry leaves are called booti (plant) and ghundhi. Ganja and charas are known by the same names here.

3. The wild hemp plant grows in the hills, and hemp seeds, lying here and there on the hills, spring up.

4. The wild plant of the hills is called akoi.

7. Yes. It is cultivated in Khandu Khibar and Mahar, taluka Halla, district Hyderabad. It used to be cultivated in Mori Mungar, taluka Hyderabad, and it can be cultivated in any kind

of land. It is cultivated in large quantities in Bubak and Arazi, taluka Sehwan, district Karachi, and in talukas Naushahro Ahro and Sukkur, district Shikarpur. It is cultivated with the object of being used as bhang and for seeds. Ganja is not manufactured in Sind, and is imported from Panvel and Cutch. Charas is not prepared in Sind, but is imported from the Punjab.

10. The bhang cultivators do not form a special class, but belong to the same classes as other agricultural cultivators.

14. Bhang and hemp seeds are prepared from the hemp plant in the fields where it grows.

15. The cultivated plant is cut, dried and beaten, when the leaves and seeds are separated. The leaves and seeds are made into bhang drink.

(*A*) Aghoris (*i.e.*, persons very much addicted to the use of drugs), who are in the habit of smoking ganja, smoke bhang instead, as ganja, if they cannot get ganja at the proper time.

(*B*) Excessive bhang drinkers eat raw leaves if they cannot get bhang drink at the proper time.

(*C*) Bhang drink is made in the following way. It is first cleared of weeds, soaked in water in a vessel, washed and pounded in a mortar with a pestle, and made into balls. Water is then mixed with it. After which it is sifted through a piece of cloth and drunk. Ganja and charas are mixed with tobacco, and then smoked.

16. Yes. It is prepared and kept in *tikanas* and *madhis* for free distribution. Yes, it can be prepared.

17. In Sind bhang cultivators prepare bhang leaves and bhang seeds.

18. Yes, charas, ganja and bhang retain their intoxicating effects for twelve months, after which period they lose their effect by degrees, and quite deteriorate after the lapse of three years. But bhang and ganja, if kept in bags, will not lose their effects for three years. If charas is allowed to remain in the original bags in which it is imported, it will not lose effect for two years; but if transferred to other bags and exposed, it will commence to deteriorate after twelve months, because the original bags in which it is imported are made of double leather. There is probability of bhang and ganja deteriorating, as it is grown from earth, and, like corn, it will lose its effect as time passes. There are no means to prevent deterioration.

19. Yes, they are used for smoking only.

20. Hindus and Mussalmans. Among Hindus, Brahmins, sanyasis, bairagis, jangams, udasis, shatrias, jogis and other fakirs; three-fourths of the above classes smoke ganja and charas; of other Hindus one-fourth only smoke them. Among Mussalmans half of lower classes of people and fakirs, and half of these smoke in large quantities in *tikanas*, *madhis* and *otaras*, and in very small quantity and rarely in their houses.

21. Flat ganja is used in Sind. Only one sort is used.

22. Foreign charas is used. Formerly Pathans used to bring it. Now it is imported from the Punjab.

23. Not generally. But aghoris, *i.e.*, persons very much addicted to the smoking of ganja, do smoke bhang when they cannot get ganja. Some poor persons, coolies, Bhils, who are in the habit of smoking ganja, use the *ghundis* of bhang as ganja, for the price of ganja is seven times more than the price of *ghundi*.

24. Hindus and Mussalmans. All classes of Hindu fakirs drink bhang, and 75 per cent. of other Hindus drink bhang; the rest have no objection to drinking. Among Mussalmans 60 per cent. of all classes except Kazis drink bhang. It is drunk mostly in *tikanas*, *madhis*, *otaras* and *dairas*, and occasionally in houses. Excessive drinkers of bhang eat it off in cases where they cannot get the drink.

25. The use of all three is on the increase. The reasons for it are:—

(1) The farmers of bhang in Sind sell these drugs at very high rates. As, for instance, in Karachi bhang is sold at Rs 2-8-0, in the Hyderabad taluka at Re. 1-10-8, and in the Hyderabad district at Re. 1-4-0, and in the Thar and Parkar district at one rupee per seer, while its original price is from anna one to annas two per seer. On account of these high rates, cultivators cultivate hemp plant secretly, which they use themselves and give to others, and consequently such persons who can get it drink it in excess. If the selling price were cheaper, the cultivators would never think of planting it secretly.

(2) People learn to drink bhang in bad company. This reason is equally applicable to ganja and charas.

26. (*a*) For habitual moderate consumers *vide* answers to questions 20 and 24.

(*b*) One-fourth of the number, *vide* answers to questions 20 and 24.

(*c*) 25 per cent. of those whom I have excluded in the answer to questions 20 and 24.

(*d*) Rarely any.

27. As regards classes, see answers to questions 20, 23 and 24. Hindu and Mussalman fakirs use them themselves, and have inherited the habit from their elders and transmit it to their chelas (disciples). Among the laymen, bad company or the want of proper care by parents leads their children into these habits.

28. (*a*) Bhang, one tola, cost 4 pice; charas, ½ tola, cost 3 annas; ganja ½ tola, cost one anna.

(*b*) Bhang, one chatang (5 tolas), cost one anna and eight pies; charas, 1½ tolas, cost 9 annas; ganja 2 tolas, cost 4 annas.

29. No massalas or ingredients are mixed with ganja and charas. Ordinarily no massalas are mixed with bhang too, but in the hot weather some consumers mix cooling ingredients with it, and in the cold weather certain stimulating ingredients are added to it. Dhatura is not ordinarily mixed with it. The object of the mixture is that in cold season it is used as a tonic and in summer as a cooling beverage. I know the preparation called the bhang massala. The following are the ingredients:—poppy, aniseed, coriander, pepper, sugar, melon seeds, succory and cucumber seeds are used for cooling in the hot weather, and almonds, milk, cardamoms and sugarcandy are mixed as stimulants in ordinary cases, and in exceptional cases nutmegs, mace, saffron and ghee are used.

30. On an average less quantity of bhang is used in company than in solitude. Charas and ganja are used in less quantity in solitude than in company.

The use of the three drugs is mainly confined to the male sex. Men of all ages drink bhang; charas and ganja are smoked by middle-aged men. Boys also use bhang, but very rarely ganja and charas.

31. Yes, the habit is easily formed. Yes, it is rather difficult to break off. Yes, there is a tendency for the moderate habit to develop into the excessive in the cases of charas and ganja, but not in the case of bhang.

32. There are both religious and social customs in regard to the consumption of bhang, but not ganja or charas.

(1) On Shivaratri (the night of Shiv god) his worshippers offer the bhang drink to his linga.

(2) In the hot weather most Hindus keep vessels full of bhang drink and water for free distribution to all.

(3) In all religious assemblies the bhang drink is prepared and distributed to all.

(4) On the death of a big saint or sadhu vessels full of bhang drink and water are kept all along the way by which the funeral procession proceeds.

(5) Worshippers of Vishnu (god), who are prevented from using liquor, prepare bhang and drink it in Holi holidays and on other gatherings. On the above occasions and at other times, the use of bhang forms a religious or a social duty. On all these occasions it is used very moderately. Such a use cannot lead to the formation of a habit.

33. The moderate use of bhang is *not* considered by people to be bad; but even the moderate use of charas or ganja is not taken to be good. There is a social opinion that the use of bhang is not bad, but that it is not good with respect to charas and ganja. The moderate use of bhang is not disreputable, but the use of charas or ganja in any form is disreputable. *Reasons.* The charas or ganja smoker generally suffers from asthma and heart-burning, loses the colour of his face. Moreover, he appears miserable and gets a bad smell in the mouth. If he has no money, he is tempted to commit small thefts in order to procure the drug. But the use of bhang, called *neinani buti* (humble plant), is quite free from the above vices, and often aids in the remembrance of God. I know nothing of the hemp plant being worshipped.

34. It would be no privation to a moderate consumer of bhang to forego its consumption, but a moderate consumer of charas or ganja or the excessive consumer of bhang, charas or ganja cannot forego their consumption without serious privation. *Reasons.* They would fall ill, grow lazy and lose appetite. About 50 per cent. of the consumers would be thus inconvenienced.

35. The use of all these drugs cannot be prohibited at once; but if the use of charas and ganja be gradually put a stop to, it would be feasible, but the use of bhang can never be prohibited. If the use of charas and ganja were prohibited, they would not be imported, and hence they would not be illicitly consumed; but bhang would be illicitly used if its use is prohibited, for it is produced in the country. If the importation of ganja and charas be prohibited, the prohibition of its use here can be enforced. The prohibition would occasion a temporary discontent among the consumers. It would not be a serious one. The discontent would not amount to political danger. The prohibition would not be followed by recourse to alcoholic stimulants or other drugs.

36. No alcohol is now used in place of any of these drugs.

37. Charas is doubly as intoxicating as ganja is, because the ganja is not so heating as charas is.

38. Only one sort of ganja is used in Sind, hence canno t give my opinion about it.

39. Ganja and charas are never used in drinking, but are specially used in smoking. Bhang is specially used in drinking, and its smoking is more injurious than its drinking, for the smoking of bhang will produce all the evils of ganja smoking.

40. Charas and ganja are never prescribed by native doctors, but bhang is prescribed in certain cases as a drink and is used in majums. It is also used as an application on piles and other wounds. It is also used in the treatment of cattle diseases.

41. (*a*) Bhang aids the powers of digestion.

(*b*) Yes.

(*c*) Bhang is used as a febrifuge.

(*d*) Old bhang is used by persons suffering from syphilis.

Old persons use bhang for aiding the powers of digestion. Labourers and poor men use these drugs to give them powers mentioned in question (*b*). Fakirs and godly persons use bhang for concentration of their thoughts.

Fifty per cent. of the classes mentioned above use the drugs. I refer to the moderate use of the drug.

42. The moderate use of bhang is both beneficial and harmless, but even the moderate use of charas and ganja is not only not beneficial, but it is not harmless. *Reasons.* Moderate use of bhang to a certain extent is a necessity for its medicinal properties, for the religious and social customs connected with it and for the fact that it creates fear of God. But ganja and charas in the beginning are taken as a luxury, and are not beneficial, but end in misery and wretchedness. They have heating properties, but that very heat of theirs destroys all manly power.

43. Moderate consumers are inoffensive to their neighbours.

44. It is refreshing and keeps the man in good health. It does produce intoxication. The drinking of bhang does not allay hunger. It creates appetite. The intoxication of charas lasts for one hour, that of ganja for half an hour, and that of bhang for four hours. Ganja and charas produce intoxication immediately, while bhang produces intoxication after some time. The want of subsequent gratification of bhang does not produce any longing in a moderate consumer. The after-effects of ganja and charas are wretchedness and misery, and perhaps death. There are special after-effects of bhang.

45. The habitual moderate use of all these drugs excepting bhang does produce noxious effects, physical, mental and moral.

The use of ganja or charas impairs, but the moderate use of bhang does not impair the constitution.

The use of ganja or charas injures the digestion and causes loss of appetite.

It causes dysentery, bronchitis and asthma.

It impairs the moral sense, induces laziness and habits of immorality and debauchery.

It deadens the intellect, but it produces no insanity.

46. The excessive use of bhang, charas and ganja produces all the evils produced by the moderate use of charas and ganja, as detailed in the answer to question No. 45.

47 and 48. It does not appear to be a hereditary habit, nor does it affect the children of a moderate consumer.

49. Yes, bhang is, but not charas or ganja. Yes, prostitutes do so use bhang. The use of bhang

for this purpose is more injurious than its use as an ordinary narcotic, for its constant use as an aphrodisiac will bring on debility. The moderate use of hemp does not tend to produce impotence.

50. The answer given in 49 holds good, but the excessive use will prove more injurious.

51. Yes. It has no connection.

52. Men of bad character use these drugs excessively and often commit offences relating to porperty and human life.

53. Yes. Unpremeditated violent crimes are committed, but I do not know any case in which it has led to temporary homicidal frenzy.

54. No.

55. Yes. Bhang alone cannot induce complete stupefaction, nor can charas or ganja alone.

56. The effects of bhang used in moderation and in excess are so much increased by mixing dhatura, parched grams, sesamum, that it produces unconsciousness, temporary insanity, and sometimes death. The effects of bhang used in moderation and in excess can be lessened by mixing coriander, succory, aniseed, and mainly by adding more water than usual to the drink.

57. Ganja and charas are not used in eating or drinking, but they are only used in smoking.

58. The present system is not working well, and is capable of improvement.

59. The practice now in vogue is that one zilla or two zillas are farmed out to one man or to one company, which results in the following evils:—

(1) The farmer fixes the selling prices as high as he likes, *i.e.*, he becomes the lord of the purses of the purchasers of these drugs. The high prices can be judged from the following:—

	Original cost.	Selling price.
Charas	Rs. 2-0-0	Rs. 30-0-0 per seer.
Ganja	„ 0-8-0	„ 10-0-0 do.
Bhang	„ 0-2-0	„ 1-10-0 do.

(2) On account of the above high rates, the habitual consumers, in order to purchase their usual quantities, are often led to commit thefts and pickpocketing, etc.

(3) The drugs are illicitly imported from other parts.

(4) Bhang is illicitly cultivated.

(5) The farmer pays no allowance to retail sellers for selling the drugs, and these retail sellers who depend on the selling business for their livelihood, must necessarily sell them at still higher rate, for which they murmur.

(6) A very large portion of the farm money comes from the pockets of the retail purchasers who mostly are poor and straightforward and true men.

(7) But rich, mischievous and unprincipled persons get these from the central depôt of the monopolist at a very low rate, for he is afraid of them.

(8) The monopolist gives many troubles to the poor retail sellers.

(9) The whole profit of the farm goes into the coffers of the monopolist and the working men, *i.e.*, the retail sellers, get no share.

(10) One farmer cannot manage the whole district, though he employs many agents.

(11) Consequently complaints of the insufficiency of the stock in particular shops are often made by district officers.

(12) At the close of the year, the old farmer sells all the drugs a little higher than their cost price if the farm for the next year is given to another man, and thus induces all willing and unwilling purchasers to buy often more than the authorized quantity at such low rates, which not only results in loss to the new-comer, but tempts the purchasers to consume more quantity than usual, and thus the use of the drugs increases.

Note.—Remedies for the above evils are detailed in answer to question No. 63.

60 and 61. I do not know.

62. The cultivation of the hemp plant for the production of bhang should be more strictly controlled.

(1) A cultivator wishing to cultivate hemp should be allowed to do so in some limited portion of his number.

(2) The cultivation should be inspected from time to time.

(3) A Government officer should be present at the time of reaping, and as soon as it is ready, it should be weighed and sealed with Government seal.

(4) If the farms are given by talukas, or licenses issued, each licensee can watch the illicit growth within the limit of his farm more easily and more satisfactorily.

63. The evils of giving the farm to one person having been pointed out in the answer to question No. 59, the improvements to remedy the evils are given below separately.

(1) The licenses should be issued for the sale of drugs in the whole district.

(2) The farm should not be sold to one man or to one company.

(3) By such a division, many persons would be employed and would earn the livelihood, independent of the farmer, and will be free from the troubles which he gives them.

(4) If the selling rates were fixed by Government for whole Sind, as is now done in the cases of opium and country liquor, it would be well, and all illicit import and export of the drugs, and the illicit cultivation of bhang, would stop.

In my opinion the following rates are reasonable:—

	Per seer. *R a. p.*
Bhang, cost price	0 2 0
Transport and clearance charges	0 1 0
Royalty	0 3 0
Profit to the licensee	0 2 0
Total	0 8 0

which should be the selling price per seer.

	Per seer. *R a. p.*
Charas, cost including all expenses	2 8 0
Royalty	2 8 0
Profit to the licensee	1 4 0
Total	6 4 0

which should be the selling price per seer.

	Per seer. *R a. p.*
Ganja, cost price	0 8 0
Expenses	0 2 0
Royalty	0 10 0
Profit to the licensee	0 6 8
Total	1 10 8

which should be the selling price per seer and

orders should be issued that no drugs should be sold at higher or lower rates than the rates fixed.

(5) In consequence of the uniform rates everywhere, no drugs will be illicitly imported and exported.

(6) On account of low rates, there will be no illicit growth of the hemp plant.

(7) On account of cheap rates, the poor purchasers would be relieved of their present troubles and grievance.

(8) On account of there being many licensees in the whole district, no complaints of the insufficiency of the stock of any of the drugs will likely be made by District Officers.

(9) The rich and the poor will have equal treatment.

(10) The evils, which are the results of the transfer of the farm to another at the end of the year, will disappear.

64. The quantity covered by a permit should be transported all at one time, and not in instalments; and if the whole of the quantity covered by such a pass is not procurable and after the portion procurable is transported, the permit covering the quantity should expire, for the transport of the quantity covered by a permit in instalments gives many opportunities of committing crime.

65. In my opinion the taxation of ganja, charas and bhang is unreasonable, both with reference to (*a*) one another, and (*b*) to country liquor and opium.

	Per seer. R	a.	p.
1. Country liquor, manufacture expenses . .	0	6	0
Selling price (including royalty) *i.e.*, the selling price including royalty is four times its cost price . . .	1	8	0
2. Opium, original cost about	6	0	0
Selling price, *i.e.*, the selling price including royalty is a little more than four times its cost price . . .	25	0	0
3. Bhang, original cost .	0	2	0
Selling price including royalty, etc., *i.e.*, the selling price is thirteen times the cost price .	1	10	0
4. Ganja, original cost, etc.	0	8	0
Selling price, *i.e.*, the selling price is twenty times the cost price . .	10	0	0
5. Charas, original cost, etc.	2	0	0
Selling price, *i.e.*, the selling price is fifteen times the cost price . .	30	0	0

The rates which are reasonable in my opinion have been given in the answer to question 63, and will be found to correspond with the present rates of opium and country liquor.

66. Only one kind of ganja is used in Sind, therefore the question cannot be answered.

67. I have objections, but I am not in possession of sufficient information.

68. There are no such shops.

69. The wishes of the people are not consulted, but they should be consulted and considered.

70. Ganja is illicitly imported from Cutch, but the smugglers, if apprehended, are punished.

General Remarks.—Another preparation from the hemp plant is majum: about a pound of bhang is boiled in five or six seers of water; half a pound of ghee is also put in it. When the water after boiling is reduced to a pound, *i.e.*, as much as bhang, it is mixed with sugar, and made into majum. Other ingredients are also put, *i.e.*—poppy pods, cardamom and saffron. This majum is sold at one anna per tola or even at much higher rate.

It is requested that in suggesting a new system of farming out these drugs and other improvements therein to Government, the Commission would be pleased to consider the following points which I herewith submit:—

(1) The use of ganja and charas should be put a stop to at once, because the smokers of ganja and charas are by this habit at once reduced to misery and penury.

(2) They are not used on any social or religious customs.

(3) None of them is useful or beneficial in any way.

(4) They produce many physical diseases, as asthma, piles, cough, jaundice, impotence, and many other various diseases.

(5) Both of these produce intoxication at once, which produces unconsciousness, and there is every likelihood of the smoker being plundered.

(6) They are never used in the treatment of any disease.

(7) Both lead to crime.

(8) By foregoing these, no smoker would resort to other narcotics, liquor, etc.

(9) People use them as a luxury, and do get a temporary pleasure, but are much harassed by their after-effects.

(10) Sons of rich men sometimes get into the habit, and I have seen many of them who afterwards became beggars. What could then be the condition of the poor?

For the above reasons I am of opinion that ganja and charas should be put a stop to at once. No deaths will result from foregoing their use, and there is no danger to Government at all.

As for bhang, it should not be prohibited. It is used both on religious and social gatherings. The only improvement to be made is that uniform and cheap rates should be introduced everywhere, in which case, the rich and the poor, the high and the low, will be equally treated. There is every likelihood that crime would disappear. Illicit growth will cease. The evils of illicit growth are that abkari laws are broken, the produce is illicitly sold or given to others, that it is illicitly consumed, and that those who get it for nothing or on payment of a nominal sum, consume it in excess, and thus intoxication increases. All these evils will be stopped.

Besides, the whole zillah should not be farmed out to one man, because the hemp cultivation will not be properly watched over. But if the farm is sold by talukas, or licenses are given, the illicit growth would be strictly watched over and will ultimately stop.

Uses and benefits of bhang:—

(1) It is used on religious or social customs.

(2) The intoxication takes effect gradually, and therefore will not be dreadful.

(3) It aids the powers of digestion.

(4) Moderate use of bhang makes a man meditative and intelligent for the time he is under its influence.

(5) It aids in the meditation of God and creates fear of Hari.

(6) The consumer of bhang grows timid, and never commits any offence under its influence.

(7) It is used as an application in piles and wounds.

(8) It is used in syphilis, pox and other diseases.

(9) It is used in the treatment of cattle diseases.

(10) Followers of Vishnu (who do not take liquor) use it on Holi holidays and on other religious and social gatherings.

(11) The selling of bhang at cheaper rate will decrease the number of liquor consumers, who would willingly take to bhang drink.

(12) Bhang is not such a narcotic as to induce the consumer to commit an offence voluntarily. It is taken solely as a beverage and makes the consumer humble and quiet. The above are the results of my observation and experience.

---

32. *Evidence of* AMRUMOL PRITAMDAS, *Farmer of Bhang, Charas, Ganja and Opium, Karachi.*

2. Ganja and charas are not produced in Sind, but bhang is. It is called bhang. There is one sort called ***pani*** and another called ***ghundi.***

4. There are two kinds of bhang; one is called ***kaki,*** the other is called ***sale.***

5. The wild plant grows wherever there are seeds on the ground and rain falls on them.

6. Its growth is scattered.

7. Yes, bhang is cultivated in my province. It is pounded and drunk. Majum is also prepared from it. It is produced in Shikarpur, at Bubak, taluka Sehwan, Khebar, zillah Hyderabad, and in Fattu.

8. It grows in abundance in Bubak, taluka Sehwan. It grows to a limited extent in Shikarpur, and in small quantities in Khebar, zillah Hyderbad, and in Fattu.

10. Yes, they are zamindars who cultivate bhang among other kinds of crops.

13. No ganja is produced in Sind.

14. Nothing else is prepared from bhang in Sind, except majum.

16. Bhang alone can be prepared from the plant, wherever it is cultivated, but ganja and charas are not prepared.

18. All these three drugs deteriorate by keeping long. The effects are weakened by time. They can be kept good for twelve months. They deteriorate by exposure. No especial measures are taken to prevent deterioration.

19. Ganja and charas are used for smoking.

20. Hindus, Mussalmans, sanyasis, fakirs, and Marathas.

21. Round ganja is much preferred.

22. Charas is imported from Amritsar. I understand that it is the produce of Yarkand and Ladak.

23. Bhang is not used for smoking.

25. It is not on the decrease. It keeps stationary.

29. Dhatura is not mixed with bhang, but other kinds of massala are mixed, such as poppy seeds, cardamoms, hemp seeds, almonds, sugarcandy, dried rose leaves and other cooling ingredients.

31. Some persons gradually acquire the habit by keeping on smoking it occasionally. The habit is very difficult to break off.

34. It causes inconvenience to many persons to forego it.

35. It would be difficult to give up any kind of intoxicating drug.

37. The effects of drinking bhang are not injurious, but it is injurious to smoke ganja and charas to excess.

38. Round ganja is more intoxicating, but flat ganja and "chur" are less intoxicating.

40. Bhang is often used in treating human diseases and cattle disease.

41. (*a*) Bhang is used as a digestive.

42. In my opinion moderate consumers will not be injured.

43. Consumers of ganja, charas and bhang are inoffensive to their neighbours.

44. Bhang gives an appetite to those who drink it. Ganja and charas produce heat, and therefore ganja and charas consumers are healthy and hale. If they cannot get the drug they will be greatly inconvenienced.

45. A moderate use of the drugs causes no injury to consumers.

55. Complete stupefaction cannot be induced by any of these drugs.

56. The effects of bhang are cooling. If bhang is drunk mixed with massalas, its intoxicating effects are considerably weakened. If drunk to excess, its intoxication can only be counteracted by the use of pickles and ghee. It is not customary to mix dhatura with bhang.

57. Ganja and charas are used for smoking.

58. In my opinion the system is working well.

60. Ganja is not produced in Sind.

61. Charas is not made in Sind.

62. When bhang is cultivated over one or two ***jirebs,*** it is cultivated under a license and is under the control of Government. Occasionally hemp plants are sown by cultivators in their fields. If Government controls this occasional planting and puts a stop to it, it will do well.

63. I have no objections to the present system.

64. I have no objection to this question.

65. In my opinion the present taxation should be continued.

66. In my opinion the present system should be continued.

67. I have no objections.

68. In my opinion the present system should be continued.

69. In my opinion shops should be opened where necessary.

70. Those who import larger quantities than those allowed by law are punished, but no duty is paid in respect of the drugs.

---

33. *Evidence of* MANGHANMAL ALUMAL, *Bhang, Ganja and Charas, and Opium farmer, Karachi.*

1. I am acquainted with the subject myself. I have managed a hemp drugs business for many years. I am acquainted with men who take bhang, charas and ganja. I am therefore able to answer the following questions.

2. Ganja and charas are not produced in Sind, but bhang is. One kind is called *pani* and another *ghundi*.

3. Bhang does not grow wild in Sind.

4. Bhang is called bhang or the plant of Shiva. There are three kinds of bhang, *kaki*, *sall* and *ghundi*.

6. The wild hemp ordinarily grows scattered.

7. Bhang is cultivated in my province and is used for drinking; and majum is also made from it. In Shikarpur, Bubak, taluka Sehwan, Khebar, zilla Hyderabad, and in taluka Tatta bhang is cultivated.

10. The cultivators are zamindars, and among other crops cultivate bhang.

13. Ganja is not made in Sind.

14. Nothing else is made from bhang except majum—*vide* question 7, chapter II.

17. Zamindars.

18. These drugs deteriorate by keeping them long. They lose their effects if kept long. They can keep good for twelve months. These drugs deteriorate by exposure. No special measures are taken to prevent deterioration.

19. Ganja and charas are both used for smoking.

20. Hindus, Mussalmans, sanyasis, fakirs and Marathas smoke them in *tikanas*, *dharamsalas*, *dairas* (Mussalman inns) and generally in houses.

21. Round ganja is preferred.

22. Charas imported from Amritsar. It is produced in Yarkand, Ladak and Bokhara.

23. Bhang is not used for smoking.

24. Bhang is drunk by Hindus and Mussalmans generally.

25. It is on the increase.

27. The consumers of the drugs are mainly Hindus. Adult men of all classes drink it habitually.

29. Dhatura is not mixed with bhang, but massala is; the ingredients being poppy seed, cardamons, hemp seed, almonds, saffron, dry rose leaves, aniseed, pepper. Ganja and charas are smoked along with tobacco.

30. The bhang is mainly drunk by the male sex, but in some parts the female sex also drinks it as a cooling beverage; but it is not taken by children. People in Karachi keep vessels full of bhang handy in the hot weather and distribute it by way of charity to any one who wants it.

31. Certain persons gradually get into habits of excess by continually smoking it. It is difficult to abandon the habit.

32. Whenever in Karachi a panchayat is convened, it is the custom to distribute bhang. The bhang mixed with sugar and powder is distributed to the members. The same practice is observed at Shivaratri, when bhang prepared with sugar is first offered to Shiva along with powdered bread and then distributed to all those who come to the Shivalaya to worship the Linga. After they have finished the worship, they drink the bhang and eat the powdered bread there and then go home to their houses. Bhang is called the plant of Shiva. The use of bhang in the above manner does not lead to a habit of taking it, nor is it injurious.

33. Bhang is generally drunk as a digestive and as a cooling draught. It is liked by most people. The use of ganja and charas is not, as a rule, regarded favourably by people. No custom of worshipping any of these drugs prevails.

34. It would cause serious privation to most persons if they had to forego the use of bhang. Bhang drinking helps the powers of digestion. Bhang is beneficial in many other ways.

35. It would be difficult to prohibited the use of it. The prohibition would cause serious discontent, and if it were prohibited by a weak Government, it would cause much disturbance. The bhang drinkers would not have recourse to alcoholic stimulants, but ganja and charas smokers would be greatly discontented, for they would be much inconvenienced by such a prohibition.

36. No. The use of bhang has taken the place of alcoholic stimulants, for many men have given up the habit of taking alcoholic stimulants and taken to bhang, for bhang has cooling effects.

37. Charas is more intoxicating than ganja.

38. Round ganja is more intoxicating. Chur and flat ganja are less intoxicating, hence round ganja is preferred.

39. The best bhang is cultivated in Shikarpur. The zamindars pluck off *ghundis* from the plant and pound and drink them. These *ghundis* (knotted leaves and young twigs) form a kind of ganja. The *ghundis* after they are pounded and drunk are as intoxicating as ganja. This is called bhang of *ghundis*. If ganja is to be prepared, it can probably be prepared from the *ghundis*.

40. Bhang is used in the treatment of cattle disease and is used in many human diseases. It is prescribed by Unani (Greek) physicians and Hindu doctors in some diseases.

41. (*b*) Bhang is used as a digestive. It gives staying-power and alleviates fatigue.

(*c*) The moderate use of ganja and charas is a stimulant and produces appetite.

42. In my opinion moderate use is harmless.

43. Moderate consumers are inoffensive to their neighbours and others.

44. Bhang produces appetite. Ganja and charas produce heat in the constitution. If consumers cannot get the drug, they are greatly inconvenienced. The effect lasts for one or two hours. It creates appetite and produces heat. It is beneficial in cases of flatulence and enlarged spleen.

45. Moderate use produces no noxious effects.

Moderate use of bhang is not injurious.

Excessive use of ganja and charas is injurious, because it brings on coughing.

46. Excessive use of ganja and charas is injurious to the consumer.

47. No.

49. Yes; many use it as an aphrodisiac. Yes; prostitutes also so use it. The use of bhang does not produce impotence but ganja and charas produce impotence and debility in old age.

55. Complete stupefaction is not produced by any of these drugs.

56. The effects of bhang are cooling. If bhang is drunk mixed with massala its intoxicating effects are lessened. If drunk to excess, its intoxicating effects are weakened only by taking pickles and ghee. It is not usual to drink bhang mixed with dhatura.

57. Ganja and charas are used in smoking.

58. The system in my opinion is working well.

60. Ganja is not prepared in my province.

61. Charas is not prepared in Sind.

62. When an acre or two of bhang is cultivated, the cultivation is undertaken after obtaining a license and is under Government control. Sometimes cultivators sow a plant or two on the ridges of fields, or seeds fallen by chance on the ground spring up. If Government were to control this growth and order it to be put a stop to, it would be well.

63. I have no objection to the present system.

64. I have no objections to the regulations. The Government orders allowing every man to transport 40 tolas are not objectionable, if transported within the same zilla; but it is objectionable to transport from one zilla to another.

65. The present taxation should continue in my opinion.

66. In my opinion the present system should continue.

67. I have no objections.

68. In my opinion the present system should continue.

69. Shops should be opened where necessary.

70. Those who import quantities exceeding the prescribed limit are punished. No duty is paid in respect to them.

---

34. *Evidence of* DAYARAM KISHUNCHAND, *Bhang, Charas and Ganja, and Opium Farmer, Hyderabad.*

1. I give the answers from my personal knowledge and experience, as I have managed the drugs farms for many days.

2. All the drugs are known in my province by the same names which are given in the book.

3. I hear that the wild hemp plant grows spontaneously in the Punjab and Quetta, where it springs up aided by snow. I cannot, however, give any positive information about it.

4. It is known by the names of sai, subzi, Shiva's plant, nangin and bubakain. These names refer to the same plant.

5. The wild hemp does not grow in my province, hence I cannot give the special conditions of climate, etc.

6. I cannot say, as the plant does not grow here.

7. It is cultivated—

not for (*a*);
not for (*b*);
but for (*c*).

Not for fibres, but for seeds (*d*).

It is only cultivated in the villages of Khebar and Mehar, taluka Halla, district Hyderabad; about 500 maunds are produced. The farmer buys it there. It is also cultivated in Bubak, taluka Sehwan, zilla Karachi, and about 3,000 maunds are produced. The farmer buys that too. In the Hyderabad zilla about 500 maunds are produced, out of which 100 maunds are purchased by the farmer.

8. In Khebar and Mehar, taluka Halla, about 1,200 maunds of bhang used to be raised, but now about 100 maunds only are produced.

Reasons. The cultivators are engaged in other cultivation. The produce in Bubak is stationary; it has neither increased nor decreased.

9. It is cultivated like other cultivation. The land is first irrigated, ploughed, and scattered with seeds, but the hemp cultivation requires more water and more care.

10. Yes; it is mostly cultivated by Belochs, Pirs, Sayads and other fakirs without permission. Yes, in addition to the above, there are other cultivators of the hemp plant who belong to the same class as other agricultural cultivators.

11. The ganja plants are not cultivated in this province, nor does the wild bhang grow here, therefore I cannot say anything about them.

12. No wild hemp is cultivated in the Hyderabad zilla, and I do not know whether ganja is produced from it or not. The male plants growing in the Hyderabad district are extirpated. It is said that they are bhangro, *i.e.*, male plants, and are not used in drinking.

13. The cultivation of the hemp plant for the production of ganja is not restricted in Hyderabad. It is restricted, but the restriction is not in practice, nor are people acquainted with that kind of cultivation, but ganja is cultivated in Panvel, in Bombay, and in Cutch and Bhooj. It can be cultivated, but the people are not acquainted with the mode of cultivation, nor is it usual to cultivate it here, hence it is not cultivated.

14. (*a*) and (*b*) No.

(*c*) Yes.

It is cultivated only in Hyderabad and Karachi districts, and about 3,500 are raised.

15. The wild plant does not at all grow here, so I cannot say anything about its preparation, drinking or smoking, but the following particulars are given about the cultivated plant:—

(*A*) Bhang is not ordinarily smoked, but some persons smoke *ghundis* mixed with tobacco as ganja.

(*B*) Bhang is not ordinarily eaten raw, but in exceptional cases *awadhoot* fakirs powder the dry leaves in their hands, and eat them raw in order to get more intoxication. Majum is also made from the dry leaves of bhang. The leaves are boiled and mixed with sugar.

(*C*) The plant is reaped and dried, after which it is beaten, and the leaves and stalks are separated. The stalks are thrown away, and the leaves and seeds are kept for drinking.

16. No; people do not cultivate the hemp plant in their houses. Yes; it can be prepared. I know nothing about these (ganja and charas).

17. Hindus and Mussalmans, peasants, only prepare bhang and nothing else.

18. The intoxicating effects of ganja are lessened after the lapse of three years, those of charas

after the expiry of two years, and those of bhang after the lapse of three years. After twelve months it changes its colour. Yes; they lose their intoxicating effects in time. They can keep good for two or three years. They deteriorate if kept for a long time, for they are products of soil. I believe there are no measures which can prevent their deterioration.

19. Yes; they are used only for smoking in this province; they are put to no other uses.

20. All classes of people smoke them, except Europeans, Parsis, Boras, and Akoli Sikhs.

The smokers will form about one-fourth of these classes. They are smoked mostly in *madhis* and *otaras*. No special places are fixed for them.

21. Flat ganja is preferred. Chur is smoked only by poor persons, for they get it cheaper. No special place is appointed for them.

22. No native charas is prepared, but foreign charas is imported from Yarkand, called Yarkandi charas. First it is imported in Amritsar, and thence it is ordered by merchants here.

23. Bhang is not used for smoking, but excessive smokers smoke the *ghundis* of bhang in place of ganja, if they do not get it in time. No place is fixed for them, and *ghundis* are so used on very rare occasions.

24. Awadhoot fakirs occasionally eat bhang when they get no time to pound it. People of all classes drink bhang, except Europeans, Parsis and Bhoras. It is drunk in *otaras, madhis*, houses, etc. I cannot give the exact proportion of the bhang eaters, but of bhang drinkers there may be 6 out of 16.

25. The use of ganja is decreasing, but that of bhang and charas is increasing. The reasons are that ganja does not produce intoxication immediately, hence its use is decreasing. Charas produces an instantaneous intoxication, hence it is extensively used. Bhang is cooling, hence it is more resorted to.

26. These preparations cannot be accurately given, but the following are estimated to be the numbers:—

(*a*) Bhang, charas, and ganja ¼.

(*b*) Cannot be ascertained.

(*c*) Bhang ⅛, charas $\frac{1}{16}$, ganja $\frac{1}{16}$.

(*d*) Cannot be given.

27. The consumers are sanyasis, wandering sutherias, mochees, muhanas and kanjars.

The company of the smokers of these drugs often leads to these habits, and sometimes they are taken as an antidote against diseases.

28. (*a*) Bhang 1½ tola, 6 pies; charas 1½ massa, 9 pies; ganja 1½ massa, 6 pies.

(*b*) Nothing.

29. In exceptional cases coriander, aniseed, poppy-seeds, cardamom, sugar, almonds, saffron, mace and milk are mixed with bhang. In ordinary cases tobacco is mixed with ganja and charas by all, except Europeans, Parsis and Boras. Dhatura is not so used. These mixtures give more pleasure. No other massalas are sold with bhang and charas, but these are purchased separately, and nothing else but water is mixed with them.

30. One person can consume ten tolas of bhang one tola charas and one tola ganja singly or in company. The habit of using these drugs prevails among men and boys and occasionally among women.

31. The habit is easily formed in company, and it is difficult to break off; the moderate habitual use leads to the excessive if the quantity is daily increased.

32. There are religious and social customs in regard to the consumption of bhang alone: when parties meet for performing worship or for singing the praises of God, bhang is used, and Mussalmans use it in Muharram. The use of bhang in the above cases is considered rather essential. On such occasions its use is moderate, and there is no doubt that its use will lead to habit, but it will not be injurious.

33. The consumers regard the use as a good. There is no public opinion in regard to it. I do not think that any form of the narcotic is disreputable, for all classes of people partake of it. The hemp plant is not worshipped here, but the bhang drink is offered to god Shiva.

34. It would, indeed, be a privation for the consumers of these drugs to forego the use. About one-fourth of such consumers.

35. The prohibition would not be feasible. The drug would be used illicity. The prohibition cannot be enforced. It would occasion discontent among the consumers. Government revenue would suffer. The consumers might create a disturbance. The prohibition will be followed by a recourse to other drugs.

36. Alcohol is not used as a substitute for these drugs.

37. Yes; charas produces intoxication at once, whereas ganja takes time.

38. These different kinds of ganja have different effects in degree and not in kind.

39. *Ghundis* of bhang are smoked and drunk. Majum is also prepared from them, which is used in eating; bhang is used as bhang. It is not in any way injurious.

40. They are not prescribed by native doctors for drinking or smoking. Native physicians sometimes use bhang in medicinal preparations. Only bhang is used in the treatment of cattle-disease.

41. Yes—

(*a*) Bhang alone.

(*b*) Bhang gives staying-power under severe exertion, and charas and ganja in other cases.

(*c*) No.

(*d*) I cannot say.

42. Answer to this is given in 41.

43. No.

44. Yes; it is refreshing. It produces moderate intoxication. It creates appetite after one or two hours. It allays hunger immediately after drinking it. Its effects last for two or three hours. There are no after-effects. The want produces no uneasiness to the moderate drinker, but it creates a temporary longing.

45. (*a*), (*b*), (*c*) (*e*) No.

(*d*) No; but ganja and charas produce asthma.

(*f*) The moderate use will not. It does not produce insanity.

(*g*) It is used by persons suffering from mental anxiety or brain disease to obtain relief.

46. Excessive use will bring on all the diseases mentioned in 45.

47 and 48. No.

49. Yes; prostitutes use it so. Its use for

this purpose is more injurious than its use as an ordinary narcotic, for it would produce weakness and debility. The use of hemp does not produce impotence.

50. The excessive use of the drugs is injurious.

51. Yes; no connection.

52. There may be very few bad characters who use these drugs in excess, but they are not bold enough to commit offences such as affray.

53 and 54. No.

55. Yes; complete stupefaction can be induced by mixing ganja and bhang; and if a consumer uses it in excess, there is every probability of his becoming unconscious.

56. The intoxicating effects of bhang are lessened by mixing coriander and aniseed with it, and this mixture is cooling. Dhatura is not mixed.

57. Charas and ganja are not drunk, but are smoked.

58. The system is working well. It is not capable of improvement in my opinion.

59. I do not think that there is any necessity of making any improvement in it.

60. Ganja is not cultivated in my province.

61. Charas is not cultivated in my province.

62. Bhang prepared from the hemp plant is well prepared, but it requires to be controlled over. It is not in Government custody as other narcotics are, and people cultivate it without a license and reap and take it home without permission. This encourages smuggling and leads to increase the use of narcotics.

63. I have no objection.

64. I have no objections; but the quantity, *i.e.*, 40 tolas, allowed to each man to take from one place to another, *i.e.*, from one taluka to another, without a pass, is excessive. He cannot use so much. If allowed to take the above quantity, there is great probability of illicit transport and of the increase of the use. Therefore the possession of bhang should be reduced to ten tolas and ganja and charas to five tolas each. This is my opinion.

65. The taxation is reasonable, and there appears to be no reason for making any alterations in it.

66. There appears to be no reason for making any alteration in it.

67. I have no objection.

68. There are no such shops, and it is not necessary to have such shops in this province.

69. The wishes of the people are consulted and are considered.

70. There are no such facts. Restrictions and measures against importation and smuggling are in force, and they are suffcient. If any drug is so imported, immediate measures are taken to bring the offender to justice; and I can offer no further remarks in the matter.

---

35. *Evidence of* Din Mahomed, *Contractor, Shikarpur.*

3. In the Shikarpur district.

4. In Sind it is called bhang and is known by no other name.

6. The wild plant generally grows dense, but its growth is scattered if the soil is poor.

7. Bhang is cultivated in my province; bhang is produced here, but ganja and charas are imported from foreign countries.

8. Particulars under this question can be obtained from Government records.

9. The process of cultivation is as under:—

The land is cleared of jungle, irrigated, ploughed, after which seeds are scattered over it.

10. They do not belong to special classes. Many persons cultivate bhang in this district.

11. Ganja plants are not produced from the seeds of the wild plant. It is a different kind of the hemp plant which produces ganja.

12. No hemp is cultivated for the production of ganja in my province, nor is such a practice prevalent here. Ganja is imported from foreign countries.

13. The cultivation of the hemp plant for ganja is not restricted. But no such practice exists in Sind.

14. Ganja and charas are not prepared, but bhang is cultivated, and this is extensively used by people here.

15. Charas is made from the flowers of the hemp plant and ganja from its leaves. Charas and ganja are smoked; bhang is pounded, mixed with water and then drunk. Such a practice prevails in this province.

16. There is no special mode of preparing bhang. The plants are cut and dried wherever they grow, and bhang is prepared from them. But ganja and charas are prepared from hemp plant, where it grows or in any other place.

17. Hindus, Mussalmans, Bengalis, Pathans, Marwadis and Hindustanis.

18. These drugs do not deteriorate if properly taken care of. They can keep good for ten years with ordinary care, but soon get spoiled by water.

19. Ganja and charas are only used in smoking.

20. No special class or classes smoke them; a certain number of people of all classes smoke them, and the rest do not.

21. Very little ganja is used in this province. Very few persons smoke it; no particular kind is preferred.

22. Ganja is extensively used in Hindustan. Hindustanis use ganja, and it is imported either from the Punjab or Hindustan.

23. Only that kind of the hemp plant from which ganja is made is used in smoking.

24. In all provinces Hindustan and Sind, bhang is pounded and drunk. Very few persons eat bhang.

25. The use of bhang is increasing, and so of charas, but the consumption of ganja in this province is very limited.

26. No definite proportions of people consume these drugs. The proportions are given under Nos. 28 and 30, and more quantity is consumed on festivals and gatherings.

27. Hindus and Mussalmans and others consume these drugs. Company with consumers of these drugs leads to the formation of a habit.

28. The cost of bhang per diem to customers cannot be fixed. Some spend 3 pies, some 1 pie, some 2 pies, some 2 annas, and some 4 annas; but there are very few excessive consumers. The cost of charas per diem is from 1 pice to 4 pice or 2 annas, and very little ganja is used in this province.

29. Aniseed, cardamoms, cummin seeds and almonds are sometimes mixed and pounded with bhang, and sugarcandy is also added. Dhatura is mixed by some persons to make the bhang more intoxicating. Few persons mix dhatura with bhang for the purpose of committing crime. No ingredient is mixed with ganja and charas.

30. Some persons consume 1 tola, some ½ tola, some 5 tolas, and some 2½ tolas. If it is drunk in company, the quantity sufficient to meet the wants of all is ordered. It is used both by men and women. In Sind boys are also in the habit of drinking bhang, but in a less quantity than men.

31. Long practice leads to the formation of a habit. It is difficult to break off. The moderate habit does not develop into the excessive.

32. It is forbidden by Muhammadan religion to use these drugs. More information about the practice of using it among the Hindus can be obtained from them. The use of bhang, charas and ganja leads to the formation of a habit, and is also injurious.

33. The use of these drugs is considered to be a habit. It is forbidden according to the Muhammadan religion. There is no religious opinion in regard to it. But the Hindus worship it and it is not in disrepute. But the use according to the Mussalman religion is disreputable.

34. It would be a privation to consumers to forego its use. Men of all classes use them.

35. Government can prohibit the use, but gradually. The drug would be illicitly used. It would occasion discontent among the consumers. The discontent will not amount to political danger. People will have recourse to the use of a little quantity of alcohol.

36. Alcohol is not substituted for any of these drugs.

37. The intoxication of ganja is keener than that of charas.

38. Ganja is not used in this province.

39. It is not injurious.

40. They are prescribed by physicians, and are used in the treatment of cattle-disease.

41. It is beneficial.

42. Even the moderate use will be injurious, but after a long time.

43. No.

44. It produces intoxication. It does not allay hunger. Its intoxicating effects last four or five hours. The want of it produces longing.

45. (*a*) No.

(*b*) It impairs the constitution.

(*c*) It injures the digestion.

(*d*) It does not cause dysentery, but causes asthma in the end. It induces laziness, but does not induce habits of immorality.

(*f*) The excessive use deadens the intellect. It does not produce insanity. Ganja will not produce insanity, nor will insanes confess to the use of the drug.

(*g*) They obtain relief. The excessive use of bhang leads into too much indulgence.

46. They are used both in moderation and in excess.

47. The use of bhang leads to the formation of a habit, but it has no effect upon the children.

48. Each of the drugs can be consumed in excess.

49. These drugs are used as aphrodisiac. Prostitutes use them so. The excessive use of bhang produces impotence after a long time.

50. Answers are given under No. 46.

51. Bad charcters use these drugs moderately, and habitually, but their use has no connection with crime.

52. Their use has no connection with crime, as is said above.

53 and 54. No.

55. Persons are not stupefied, but *sufis* (persons not habituated to the use of narcotics) are stupefied even without admixture.

56. Dhatura is mixed with bhang to make it more intoxicating for personal consumption and also for administration to others, but this is done on rare occasions.

57. Ganja and charas are not used in drinking, but are used in smoking.

58. The system is working well, but the rates are dear, which give immense profit to the farmer.

59. The agreement of the farmer should contain a condition that he will sell the drugs at a fixed rate.

60. Ganja is not prepared here.

61. Charas is not prepared here. It is mostly imported from Khorassan and other countries.

62. The cultivation of the hemp plant for the production of bhang is sufficiently taken care of by the cultivators.

63. The farmer sells these drugs at high rates. These should be improved.

64. I have no objections.

65. The practice of drinking bhang prevails chiefly in Sind. The taxation of the same is reasonable, but the farmer sells it dear.

66. I have no objections.

67. No.

68. There are shops in my province.

69. The wishes of the people are not consulted.

70. These drugs are not smuggled from Native States; the smugglers, if any, are detected and punished. Duty is really paid on such drugs; these drugs are bought from the shops and used as usual by certain people of all classes, and not by any particular class.

EVIDENCE OF BERAR WITNESSES.

1. *Evidence of* MR. A. ELLIOTT, *Deputy Commissioner, Wun District.*

51. During my service of more than twenty-four years in Berar, I do not remember any case in which the accused person was supposed to have committed the crime as a result of use of these drugs; nor does the moderate use of these drugs convert the consumers into bad characters, nor, *vice versa*, are bad characters, as a rule, consumers of these drugs.

52. The excessive use of these drugs is injurious to the health of the consumers, and, I believe, affects their mind and intellect, but does not, as far as my experience goes, tend towards crime. On the contrary, the excessive use of these drugs so completely undermines the health, nerve, and mind of the consumer as to leave him almost incapable of committing premeditated crime.

53. I do not know of any such case, but it is quite possible that excessive indulgence in any of these drugs, particularly bhang, might lead to temporary frenzy, during which unpremeditated crime might be committed.

54. Not that I am aware of.

55. Certain classes of criminals do use drugs of various kinds to stupefy their victims, or even to kill them; this type of criminal was more common in old days than now. Whether ganja, bhang, and charas were, or are, more frequently the drugs used for this purpose than dhatura or other drugs I do not know, but as far as I am aware the action of these drugs would not be sufficiently rapid to suit the purposes of the criminal in most cases. I have never seen any experiments made with these drugs, and do not know whether complete stupefaction can be induced by them without admixture.

2. *Evidence of* KHAN BAHADUR SHAMSUDDIN ALI KHAN, *Officiating Deputy Commissioner, Basim District.*

51. No. None so far as has come to my notice in this district.

52. Not come under notice in this district.

53. Probably would, but I cannot speak from personal observations. No.

54. Not so far as I know. Liquor is generally taken on such occasions both before and after committing the offence.

55. I have not come across any such cases. I believe it can.

3. *Evidence of* C. SHAM RAO, *Attachè to the Resident at Hyderabad, now at Pusad, Basim District.*

1. I obtained the information regarding the matters connected with hemp drugs from ganja smokers and opium contractor of this taluk, who sells ganja.

2. Yes. Siddhi, bhang, subji or patti, charas; only flat ganja is known in this part of the province.

3. So far as I can ascertain, the hemp plant does not seem to grow in this part of the province except near Khamgaon in Akola district. It is cultivated there to a small extent.

4. It is known as the ganja plant.

5. As it is not grown here, so I cannot give answer to this.

6. There is no growth of wild hemp in this part of the province.

7 and 8. As it is not cultivated in this district, I am unable to answer to this question.

9. It is sown like jawari and cheena by means of plough with ganja seeds.

10. Agricultural cultivators, in order to sell it, cultivate ganja by obtaining license from the authorities.

11. Without cultivation ganja is not grown. In this taluk no ganja is either cultivated or grown.

13. So far as I know, there is no restriction. It is only cultivated in Khamgaon. Ganja could be grown if cultivated here. No special condition of climate, soil, etc., is necessary.

14. Ganja and bhang are prepared here, but charas is not manufactured here. Bhang is used for drinking purposes as beverage, and ganja is used for smoking.

15. The compressed flower tops of leaves are washed with cold water and a little tobacco is added to it and used for smoking.

Ganja leaves devoid of flower tops and seeds are pounded with rich spice (such as cardamoms, nutmegs, cloves, saffron, sugar, black pepper) and drunk as beverage in summer. This preparation is called bhang.

16. Bhang is generally prepared by the well-to-do people in their houses. Hemp grown everywhere may be used for the preparation of bhang. Charas is prepared from ganja plants.

17. Bhang is used by rich classes, and ganja by sanyasis, gosains, fakirs, etc.

18. Generally ganja does not last more than a year. Bhang should be prepared and taken at

once. Charas lasts for four years. Ganja should be ærated, but not exposed to sun or rain.

19. Ganja and charas are used only for smoking purposes. Tobacco is mixed with ganja when smoking and *goodakhoo* (a preparation of tobacco and jagri) while smoking. Charas is used in Hindustan. In this province only ganja is used.

20. Rich classes and Kayaths in Hindustan greatly make use of charas. It is a costly thing. As ganja could be procured cheaply, so mendicants, such as fakirs, gosains, largely make use of it.

21. Only flat variety of ganja is procurable here, and so it is used here. Round variety is not procurable here.

22. No charas is used here.

23. Bhang is never used for smoking, but only for drinking purposes.

24. Well-to-do people use bhang for drinking. This is a cooling beverage and generally used in the hot season.

25. It is neither on increase nor on decrease. The use of these depends on the means of persons who are addicted to their use.

26. (*a*) 25 per cent. of the consumers.
(*b*) 5 per cent. of the consumers.
(*c*) 69 per cent. of the consumers.
(*d*) 1 per cent. of the consumers.

27. Habitual moderate consumers, habitual excessive consumers and occasional excessive consumers are mostly gosains, fakirs, ascetics, etc. Middle class men, when they accidentally approach the smokers, partake of it out of fancy. Gosains, fakirs, and ascetics smoke ganja to make themselves impotent, and to forget other worldly pleasures by being partially or wholly stupefied by the influence of these drugs.

28. (*a*) One anna per diem.
(*b*) Four annas per diem.

29. (*c*) Tobacco is ordinarily mixed; (*b*) exceptionally arsenic, nux vomica, and dhatura are mixed. In Berars bhang massala is not prepared for sale. It is procurable in Hindustan. Cardamoms, cloves, sweet almonds, and sugar form the ingredients.

30. Ganja is smoked in company, and so also is bhang drunk. It is generally used by the male class. In Hindustan children are given bhang in the form of a beverage. Those above ten years generally use the drug.

31. It is easily formed by society, but difficult to break it. There is a tendency to develop into the excessive use.

32. There is no custom in this part of the province, social or religious, in regard to the consumption.

33. Hemp plant is not worshipped by any class of men here. But on occasions of religious ceremonies, such as the feast of "Khandoba," "Mahasheo Ratri," it is offered to the persons addicted to use them. The social opinion is in favour of moderate use of ganja and bhang. Excessive use of the said narcotic substance has made it to fall into disrepute.

34. If persons accustomed to the use of the said narcotic substance are deprived of the use of it, they will lose their energy and behave like a mad man. This is applicable in the case of moderate and excessive consumers.

35. It is feasible to prohibit the use of these drugs. It can be consumed illicitly. The prohibition can be enforced by the strict regulation of the law. In this taluk there would be discontent to a small extent among the consumers, but that would not result into any political danger; the prohibition of that substance would not be followed by the use of other alcoholic substance.

36. Alcohol is not used for these drugs as a substitute.

37. Charas is not used here, but the intoxication produced by smoking charas is very strong and lasts long, namely, for a couple of hours.

38. Chur and round ganja are never sent for and used in this taluk.

39. Drinking the preparation of hemp plant is less injurious than smoking the same. The drinking bhang keeps the body cool and healthy.

40. Native doctors prescribe it for medicinal purposes, chiefly for persons suffering from venereal disease. They also prescribe ganja smoking to persons bitten by venomous reptiles.

41. Moderate use of ganja and charas is beneficial to digest food, to alleviate fatigue, and to prevent disease in malarious and unhealthy tracts. The labouring classes, gosains, ascetics, and fakirs make use of these drugs in large proportions, while persons belonging to higher class make use of it in a very small proportion as luxury. Moderate occasional use is better than its habitual use.

42. Smoking is not beneficial nor harmless if they do not use substantial food.

43. They are quite inoffensive to their neighbours.

44. It has got refreshing effects immediately on the habitual consumers by its moderate use. It allays hunger in case of habitual consumers, and in case of occasional consumers it creates appetite. Its effects last about two or three hours and bring on jolly temper. It produces longing and uneasiness on the minds of habitual consumers if their want is not sufficiently gratified.

45. It produces noxious effects, namely, mental, moral, and physical. It impairs constitution. In case of habitual moderate consumers it causes loss of appetite. It produces asthma, but I do not know about dysentery or bronchitis. It impairs the moral sense, induces laziness, and to acquire habits of immorality. It deadens intellect and makes a man dull. It produces a sort of madness.

46. It impairs the system very much. The consumer becomes very weak and exhausted, and he cannot manage without an excessive dose, and his power of intellect suffers.

47. It does not affect the children in any way, and it does induce hereditary habit.

48. The children of the habitual excessive consumers are very weak. It is not hereditary even in this case.

49. Moderate use of bhang is practised by males as an aphrodisiac. Prostitutes do not use bhang as an aphrodisiac, but smoke ganja as a vocal stimulant. It is more injurious when taken as an aphrodisiac because it taxes the sexual organs more than under ordinary circumstances. Moderate use does not produce impotence.

50. Excessive use of ganja is practised by gosains, fakirs, etc., as an aphrodisiac and to avoid cold and fatigue, etc. It tends to produce impotence.

51. Some of the bad characters are habitual moderate consumers of ganja. Some other ganja smokers when they are short of money pick pockets

and commit minor thefts. It has no connection with crime of any special character.

52. Bad characters are not generally habitual excessive consumers of any of these drugs; and there seems to be no connection between excessive use of any of these drugs and crime, because when they are once fully under the influence of these drugs they are quite incapacitated even to move about.

53. Excessive indulgence in any of these drugs does not incite to unpremeditated crime. I do not know of any case in which it has led to temporary homicidal frenzy.

54. These drugs are not used by criminals to fortify themselves to commit a premeditated act of violence or other crime.

55. In this part of the country criminals do not use any of these drugs for the purposes noted in the question. Complete stupefaction may be produced by this drug without admixture.

56. The effects of hemp are intensified by the admixture of dhatura, but lessened by mixing with tobacco. Very few of the excessive habitual consumers of ganja smoke it mixed with a small proportion of dhatura.

57. Ganja is sometimes fried in ghee mixed with sugar and spices, all well pounded into a mass, and eaten. It produces slight stupefaction and agreeable dreams.

58. I consider that the present system of excise administration in this part of the province is working well.

60. Ganja is not produced in this part of the province.

61. Charas is neither produced nor used here.

---

4. *Evidence of* Rao Bahadur Vaman Narayen Bapat, *Extra Assistant Commissioner, Amraoti District.*

51. I cannot say that any large proportion of bad characters of Berar are habitual moderate consumers of any of these drugs. I would say that only a very small class of bad characters is addicted to smoking of ganja, and the majority of them are given up to liquor and opium. There is not apparently much connection between the moderate use of ganja and crime in general, or in particular. As a general rule, it may be safely asserted that people who habitually commit crime, are given up either to liquor, opium or ganja, the professional classes of criminals perhaps being excepted. The reason of this general addiction of offenders to some intoxicant or other is that they almost always belong to degraded classes of society. Their morals are very low, and they have no public opinion as such to restrain them from such evil habits. Thus even boys take to ganja, opium, or liquor from their boyhood, in which they find no small encouragement from the examples of their elders. Thus brought up, they naturally are averse to all manner of serious work, which alone can secure for them their bare living. Added to this is the sharp and irrepressible craving for the stimulants which cannot wait. Hence they are disposed to commit small thefts, more for the acquisition of the stimulants than for that of the means of livelihood. So I think that any of these stimulants do not stand as cause to effect towards commission of crimes. The ganja smokers' crime is generally petty thieving. I have no reason to believe that bhang eating or drinking leads to crime.

52. The excessive use of ganja smoking is believed to lead to insanity. Of course crimes may be committed in this state for which the offender cannot be held responsible. Ganja smoking in excess leads to crimes of personal injury even amounting to murder.

53. Excessive indulgence in ganja smoking is known, in a few cases, to have incited to unpremeditated crime of violence to person even up to murder. I know of no case in which it had led to temporary homicidal frenzy.

54. I know of no instances in which criminals used any of these drugs to fortify themselves to commit a premeditated act of violence or other crime. But it is just possible that criminals in very rare cases may be doing this.

55. I have heard criminals inducing their victims to partake of some preparations of hemp drugs, and thereby to stupefy them, so that the intended crimes may be easily and safely committed. As to whether complete stupefaction can be induced without admixture, I am not in a position to say.

---

5. *Evidence of* N. P. Joshi, *Extra Assistant Commissioner, Wun District.*

51. The bad characters in Berar are not habitual moderate consumers of hemp drugs. There may be but very few among the bad characters that are addicted to the smoking of ganja or drinking of bhang. I do not think moderate use of ganja has any connection with the commission of crime in general. The consumer of ganja is sometimes prone to pick up quarrels and commit crimes such as petty assaults, but I had not before me up to date any case in which an offender was found guilty of a crime which he had committed while he was under the influence of ganja or bhang.

52. The excessive use of ganja or bhang brings on insanity. In some cases it is temporary, and the discontinuance of the use and proper treatment restore a man to his proper senses after some time; but in some cases the insanity brought on by excessive use is almost permanent.

53. The excessive indulgence in ganja smoking may in rare instances incite to unpremeditated crime of violence, but I know of no case in which it had led to temporary homicidal frenzy.

54. I know of no case in which it was disclosed that the offender used ganja or bhang to fortify himself to commit any premeditated crime.

55. I have heard that criminals sometimes induce their victims, boys and women especially, to partake of hemp drug sweet preparation to further their designs. This is done in large fairs where thieves distribute the preparation as *sharni* or sweetmeats in the name of goddess in the evening, and after fall of night freely rob the women and the children of their property.

6. *Evidence of* Mr. J. R. O'Grady, *Extra Assistant Commissioner, Badnera.*

51. I do not think that any very striking disproportion exists, although habitual moderate consumers of ganja and its several preparations are, I believe, somewhat more numerous amongst bad characters than amongst men of the same caste or class who are law-abiding subjects. This is due, as far as I am able to judge from the cases that came within the range of my own observation, to the downward tendency acquired by men who take to a course of bad livelihood. The loss of self-respect thus suffered, especially after a conviction and the loosening of the ties of caste or family, or the restraints of society, make it easier for an individual to take to a habit which is looked upon by the generality of his countrymen as low and degrading. The term *ganjeti*, I might here state, is one of reproach, and usually carries with it a great deal more than its literal meaning of a smoker of ganja.

2. I do not believe that habitual moderate consumption of the drug has any connection, or perhaps only a very slight connection, with crime of any kind. I have known good charactered policemen, railway porters, sepoys, sadhus, sanyasis, and other Hindu asectics and religious mendicants, Marwari bankers and merchants who were confirmed consumers, and who, by long habit, had acquired the ability of taking astonishingly large quantities of the different preparations without any apparent ill-effects, morally or physically.

52. The same remarks apply, only less forcibly, to the excessive indulgence in the habit, excessive being understood to mean in unaccustomed quantities. I believe that the general tendency of the habit, when indulged in to an excess, which the means of the persons indulging do not permit, is to make him take to such types of crime as afford him the facility of adding to his income to meet the extra expense.

The drug, considered in its relation to crime generally, occupies, I think, the position rather of an agent or tool than its primary cause; Indian criminals using it in the same way that a "Bill Sykes," or a "Moonlighter" would use gin or whisky at home, to work up "Dutch courage" for the commission of acts which had been determined on beforehand, and which they would put into execution, ganja or no ganja.

53. Excessive indulgence does, to my knowledge, so incite some people. I believe this depends upon the natural temperament of the person indulging in the drug, in the same way that liquor affects different people differently, putting some into a frenzy and making others better tempered than when sober. It is my opinion that weak-minded people who are morose and given to brooding are more likely to be led into some act of violence or homicidal mania by the use of ganja than others who are stronger physically and mentally. A case in point is the following:—A pensioned sepoy, now dead, Amrut *alias* Ambrose, served me for a short time at Badnera. I had known him for very many years. He was morose, but of a most humble and, I must say, rather cowardly disposition for a man who had been an infantry sepoy for some twenty-five years. I had him employed in 1884 to watch building material at Badnera. Larger quantities of wood having been stolen, I took proper steps, and Ambrose himself was detected one morning by a constable stealing a bundle of wood, and was told that I would take him to task later on. At 10 A. M., when I saw the man, he was excited, had an unusually wild look about him, and was grossly impertinent on my telling him that he was dismissed. I then ordered a constable to put him off the premises, and left before the order was carried out; but as I was passing within a couple of yards of the well in the church compound, which had been just sunk to a depth of thirty-five feet, and was still unfenced, Ambrose made a sudden rush at me from behind, clasped me round the body, and, before I had quite realized my position, violently pushed me to within two feet of the brink of the well, muttering, "I will kill you and die myself." He showed all the strength and frenzy of a madman, and it was with the greatest difficulty that I prevented him from effecting his purpose. When I threw him off, he hurled a big stone at me and then rushed at me with a heavy billet of wood, and had to be severely handled by me before he was quieted. He admitted to me afterwards that, fearing I would administer a beating to him, he had prepared himself for the occasion by smoking a large quantity of ganja, to which he had been addicted in moderation for about thirty years. Up to this he had always borne an extremely good character, both before and after taking his pension, and his conduct on the occasion referred to above was quite exceptional and unlooked for.

On the other hand, there are many persons whom I know to be habitual consumers of the drug in large quantities who never displayed such homicidal frenzy, even under far more trying circumstances. An old Telugu servant of mine, who is still alive, has been in the habit of smoking ganja for over thirty years; but was always hard working, thoroughly reliable, and a man of the most even temper.

54. Yes, I believe they are. Ganja is resorted to where the necessity arises for the display of great endurance, or for the support of pain, fatigue or hunger; also sometimes to nerve a man to do a daring or cruel act. It is by the use of this drug that the "tigers," and "majnoons" and other masqueraders are able to stand such an extraordinary amount of incessant exertion and continued want of sleep during the ten days of Muharram.

Hindu ascetics practise most of their austerities under this influence, and it is used also in some cases of rude surgery. I have known a servant of mine once administer majum to a child of ten before subjecting her, as a cure for persistent fever, to a most fearful cautery on the small of the back with a piece from the neck of a broken earthen waterpot which had been made red hot over live coals.

At an execution by decapitation at Hyderabad, which I witnessed many years ago, the executioner resorted to his ganja *chillum* several times before he worked up sufficient courage to administer the fatal stroke.

At Nawanaggar in Gujarat, in 1868, a Habshi retainer of the Raja's murdered his own wife and daughter and defied arrest. He was tried *ex parte* and condemned to death. A half-breed Arab volunteered to put the sentence into execution, and, approaching the Habshi under pretence of being unarmed, but with his naked sword hanging behind his back, cut the man down in front of his own door. I reached the place a few days later and spoke with the Arab, who assured me that the Habshi being an extraordinarily powerful man and

very ferocious, he felt afraid to approach him until he had had recourse to hashish or ganja.

As examples of endurance under influence of the drug, I might mention the following few instances out of a large number :—

An artillery sepoy of one of the Contingent batteries, whom I knew very well, as he was my father's orderly for a number of years, and afterwards rose to be a superior native officer, retiring as such, was a confirmed smoker of ganja, and drank bhang also. He did this from a spirit of economy of time and money, to save the expense of provisions, and the two or more hours per diem which he had to spend in the culinary and ceremonial functions he had, as a Pardeshi Brahmin, to go through daily in the preparation of his food. He ate only twice a week, on Sundays and Thursdays, military holidays, supporting himself during the interval upon small handfuls of *chabina* (parched gram) and other grains, and several smokes a day of ganja. He drank bhang as an appetiser and digestive on the two days set apart for cooked food. He was none the worse for this, and discontinued his fasts only after having, like most Pardeshis in Berar, acquired a certain competency. He, however, kept to the ganja and bhang even after the alleged necessity for indulgence had ceased.

The case of a railway porter, and a sepoy of the Hyderabad Contingent Infantry, and of several Tapaswis (Hindu ascetics practising austerities) who were under a vow to eat no solid food, cooked or uncooked, for various terms of years, seven to fourteen, and had the reputation of having kept to their vows on cow's milk and fresh fruit and ganja.

The railway porter, after nearly completing the period of his vow, became temporarily mad during a hot weather. His insanity was, however, of short duration, and he was re-employed as a "gateman," and is still, I believe, on the railway.

The sepoy, I was credibly informed, completed his seven years' abstinence. I saw him when he was in his fifth year, and he looked somewhat pale and reduced, but otherwise strong and healthy. He lived on only four quarts of fresh milk, with sugar, bhang, and several smokes a day of ganja.

I shall refer to the case of only one of the Tapaswis—a man in the "Khaki-baha Math" at Hingoli, who was under vow of standing upright, night and day, for fourteen years, on milk and fruit, assisted by ganja. I saw him when he had done ten or twelve years. He was pale, but plump and healthy on the enormous quantities of fresh fruit, milk and sugar which he consumed daily. A medical friend who accompanied me to the Math examined the Tapaswi and found that he had completly lost the power of flecting the knees, ossification of the joints having supervened through long disuse. The man assured us that the torture at first was horribly intense, and he was enabled to endure it only by consuming large quantities of bhang and ganja, etc. His mode of spending the night—in the day he shuffled painfully about without bending the knees—was by suspending the upper portion of his body from the arms upwards on a rude grass pillow which was placed between the pendant ends of the roots of a large *Budd* tree under which he had taken up his residence, night and day, fair weather or foul. I saw him repeatedly, once during the heart of a severe monsoon. Exposure and bad circulation had produced a great swelling of the legs, which a *hadjam* had attemped to relieve by deep scarifications from knees to toes with his razor. There were scores of these cuts, which had festered into deep, irritant, painful sores. The Tapaswi, however, only smiled with a look of good-tempered indifference; but kept applying himself vigorously to his ganja *chillum* or lota of bhang, of which he consumed astonishingly large quantities.

55. Preparations of hemp are sometimes used by pickpockets and thieves during periods of large gatherings of the people at fairs and places of pilgrimage, also by *bhamptas* in railway trains and waiting rooms to stupefy their victims, whom they are thus enabled to rob all the more easily. The juice extracted from the green roots of the jawari plant is said to be sometimes added to give the drug greater effect. The preparation of ganja known as majum is sold in large quantities during Dassera, Holi, Muharram, etc. The ordinary quality is not very powerful, and is pretty freely partaken of by the people. A stronger quality is usually kept by such *badmash* sweetmeat vendors as are in league with the pickpockets and thieves. This strong majum is sold by the vendors to suitable victims, usually unprotected females or young lads with ornaments on their person, of which they are stripped by the accomplices when stupefied or semi-stupefied by the effects of the drug. A case of this kind came under my notice many years ago. The victim was a young woman with an infant in her arms. She was a spectator of the "Ram Lila" *tamasha* and fireworks at Ellichpur during the Dassera, and walked past me to purchase some sweets. I noticed that she had a number of ornaments on her person; but an hour or so later, I found her huddled up under a tree, her ornaments taken from her, and she only half conscious of the fact. Complete stupefaction did not seem to have taken place. The woman moved about very much as usual, but appeared as if doing so in a somnambulistic state. Majum had been given her.

I myself once partook of a small piece of majum, which made me feel dull and stupid, with rushing sounds in the head. If I had taken more, it would have, I fear, completely stupefied me.

---

7. *Evidence of* KRISHNARAO HARI, *Officiating Extra Assistant Commissioner, Buldana.*

1. I had been a tahsildar for some eight years, during which time I had often to visit the opium and ganja shops in my taluk. It was then that I had to come across some information about the hemp drugs. As regards Buldana district, I have obtained information as much as I could.

2. In the Buldana district as well as in the Amraoti and Akola taluks, where I had served as tahsildar, only two narcotic articles are obtained naturally from hemp plant, *viz.*, ganja and bhang. Charas, which is the resinous exudation from the hemp plant, is not collected, nor is it imported into and sold within the above district or taluks.

The definitions given in question 2 as to ganja and bhang may be accepted for the Buldana district. These products are locally known as ganja and bhang.

3. I am not aware of any taluk or district in

which the hemp plant grows spontaneously or abundantly in Berar.

7. In the following villages of Mulkapur taluk of the Buldana district, the cultivation of hemp plant has hitherto been made for the production of ganja and bhang alone :—Ghamgaon, Sutale, Burti, Godhnapur, Mendhali, Warkhed.

The hemp plant has never been cultivated for its fibre or seed.

The extent of cultivation, as ascertained from the records in the Deputy Commissioner's Office, during the past several years, will be seen from the following figures :—

Years.	Area. A.	G.
1878-79	18	25
1879-80	34	1
1880-81	2	20
1881-82	44	34
1882-83	33	0
1883-84	29	37
1884-85	16	30
1885-86	17	0
1886-87	17	30
1887-88	12	34
1888-89	18	17
1889-90	16	34
1890-91	6	0
1891-92	6	34
1892-93	12	39

8. From the above figures the average area under cultivation of the hemp plant during the last fifteen years comes to 19 A. 9 G., while the average cultivation during the past nine years is far below the average area above arrived at. The average during the past nine years is also larger than the area under cultivation during 1892-93. The cultivation is therefore evidently on its decrease.

The decrease may be attributed to the fact that although the produce of the hemp plant is lucrative in itself, yet the compulsion to the cultivators to sell the produce to the license vendors alone, and the prohibition to export the produce out of Berar, do not fetch for them good prices expected by them, to cover the expenditure incurred in paying off the license fee as well as in the cultivation of the hemp plant.

9. The land in which the hemp seed is to be sown is first prepared by means of a plough before the commencement of monsoons. The seed is sown just at the time the jawari sowings are made, by an implement called *tifan*. But the hemp seed is put into the ground at a distance of about a cubic foot to allow the plant to grow in good foliage when the seed shoots out and grows into a plant of about a foot in height. The male plants, called bhangara, are picked out and thrown away as useless, they being very injurious to the produce of ganja from the female plants. Experts are required to recognize the male plants.

The hemp drug crop is an autumnal one, and watered by means of rain. But during droughts the crop is required to be watered from wells. When the plant grows to the height of about 5 feet, it becomes flowered and budded, and is then in a fit state of being harvested.

10. The cultivators of hemp plant do not necessarily form a special class. Any agricultural cultivator can become a cultivator of hemp plant.

11. There being no seed available of the wild hemp in the district, the plants cultivated for the production of ganja are not raised therefrom.

12. No, I am not aware of any special cultivation of wild hemp.

13. The cultivation of the hemp plant is not restricted to any particular part of the district. It is freely permitted under certain restriction, *viz.*, the cultivator of the plant is required to obtain a license from the Deputy Commissioner on payment of Rs. 10 for every acre or part of an acre of land intended to be cultivated with the same. Notwithstanding the cultivation is made only in Mulkapur taluk, and that too in very few villages. In the other two taluks, *viz.*, Chikli and Mehkar, no cultivation of the hemp plant is made or ever attempted.

The soil required for hemp plant cultivation should be rich black soil suitable for kharif or autumnal crops.

14. The hemp plant products, *viz.*, ganja and bhang, alone are prepared in villages of the Mulkapur taluk, mentioned in answer to question No. 7. The figures for the extent of the produce are not available.

15. The following are the methods of preparation of hemp plant for—

A. *Smoking.*—The flowered and budded portion of the hemp plant, which is called ganja, is separated from stems and seed, if any. The same is then taken on the palm of the left hand and then mixed with water by rubbing it with the right hand thumb. After it is properly cleansed a little quantity of tobacco is mixed with it. The preparation is then smoked in *chillum*.

Ganja is not used for eating or drinking purposes.

B. *Eating.*—Bhang, *i.e.*, the leaves of the hemp plant, are separated from the stock and dried. The dried mass is cleansed with water and fried in ghee. It is then pounded and mixed with sugar before it is eaten.

A kind of sweetmeat is also prepared from bhang. The leaves of the plant are soaked in water and then pounded. The green coloured juice obtained from them is put into boiled sugar. This preparation, when cooled, is formed into small cakes, which are called majum *wadis*. They are generally eaten by Muhammadans at the Muharram festival.

Another kind of sweetmeat called *yakuti* is prepared from bhang in the same way as majum, with this difference that in preparing *yakuti* bhang massala consisting of cardamom, aniseed, nutmegs, almonds, saffron, etc., are mixed with boiled sugar, while the majum preparation does not require these ingredients. *Yakuti* is generally used by the rich.

C. *Drinking.*—The dried leaves of the hemp plant are first cleansed with water. Pepper, dry buds of rose, poppy-seed, aniseed and cardamoms, etc., are mixed with it. The preparation is then pounded and mixed with water, to it milk and sugar are added, and the whole becomes a good cooling drink in hot weather. The drink is called a *ghota*.

16. The bhang drink is prepared by people in their own houses. But the bhang produce is prepared only by the cultivator in fields where the plant is grown, or on threshing floor ground.

17. The preparations of the hemp drug are made by consumers of ganja and bhang as well as by the confectioner.

18. Ganja and bhang do not deteriorate by keeping for a period of about twelve months, after which they do. After a couple of years, ganja and bhang quite lose their effect. With ordinary care they are said to keep good for about a year. The cause of their deterioration is said to be their exposure to

heat or moisture; to prevent deterioration they should be kept in underground cells.

19. Ganja alone is used for smoking. Charas is not available in the district, and therefore not used. Smoking ganja is prevalent everywhere, although on a very small scale.

20. The smoking of ganja is not restricted to particular classes of people. It is smoked by any class. The proportion of the smoking class is very difficult to ascertain. In every place and in every class, people are found to have been addicted to smoking. The number of persons smoking ganja may, however, be ascertained from the quantity of ganja sold in the district.

The quantity of ganja sold during the past nine years, as ascertained from figures obtained from the Deputy Commissioner's office, will be seen from the following figures:—

Year.	Maunds.
1884-85	50
1885-86	65
1886-87	92
1887-88	80
1888-89	87
1889-90	78
1890-91	83
1891-92	67
1892-93	69

Total for nine years is 673, average being 75 maunds.

This average of 75 maunds, at the rate of ½ tola of ganja per consumer per day, will suffice for 1,315 persons for one year. The total population of the district is 481,021. The proportion of the consumers of ganja will therefore be ·3 per cent. of population, which appears to be very trifling.

21. The flat ganja alone is available, and therefore it is alone used in the district for smoking purposes.

22. No charas is available in the district, whether native or foreign.

23. Bhang is never used for smoking.

24. The use of bhang is not restricted to any particular classes of people. It is generally used for eating purposes, especially by Pardeshis or persons from Upper India, who have come to Berar to gain their livelihood, the proportion of whom cannot be ascertained. The drinker of bhang will be found more or less in almost all the classes of people and places.

25. The use of ganja and bhang appears to be, of late, on the decrease. From the figures given in the reply to question No. 20 the total consumption of the drug during the past two years is far below the average consumption of the past nine years. The habit of smoking ganja or drinking bhang is considered by the better classes of people to be very degrading, and therefore less addicted to.

27. The principal classes of people from which the habitual or occasional moderate or excessive consumers of the hemp drug are taken, are the Pardeshis, the bairagis and the gosavis.

The Pardeshis are generally the immigrants from Upper India, who have come to Berar for their livelihood. Their principal object is to earn money to be enjoyed by them after their return to their homes. They often try to live within as small an amount as possible, eating their meals once in twenty-four hours. In order to avoid the feeling of such privations they resort to the habit of bhang eating.

Bairagis and gosavis, who as such are said to enounce all the worldly cares, often addict themelves to the use of smoking ganja that they may not feel the absence of worldy blessings which they are, by their profession, compelled to renounce. This they can effect by being always under the influence of narcotic hemp drug.

28. The average allowance of ganja per day to a habitual moderate consumer is said to be half a tola, while that of bhang to be one quarter tola. The average allowance of ganja to a habitual excessive consumer is said to be three tolas per day, while that of bhang to be one tola.

29. The question is partly answered in reply to question No. 15. Dhatura (stramonium seed), bachnag (aconite), koochala (nux vomica) are also mixed with the hemp drug to increase intoxication. The preparation called bhang massala is not sold as such. The ingredients thereof are partly given in reply to question No. 15.

30. The two drugs, *viz.*, ganja and bhang, are generally consumed in solitude. Very few instances will be noticed in which the drug is consumed in company. The drug is mainly used by the male sex, although some few prostitutes may sometimes be found using the drug. The drug is never used by children.

31. The habit of consuming the hemp drug, especially ganja, can be very easily formed; and when once formed it is very difficult to get rid of it. It is said that there is a general tendency in the case of ganja smoking alone for the moderate habit to develop into the excessive, which is not the case with bhang eating or drinking.

32. Of the three forms of the great Trinity, Shiva, the destroyer, was considered to be addicted to ganja and bhang intoxications. His worshippers on each Shivaratri day, which is assigned to the deity, indulge themselves in drinking bhang. This custom is regarded by the devotees of Shiva to be essential.

During the Shimga holidays people drink bhang ghota as a cooling draught.

The above customs have, of late, been much neglected, but they were never found to lead to the formation of any habit.

33. The consumption of the two drugs is socially or even religiously regarded as degrading. I am not aware of any public opinion in regard to the practice, but I do consider the use of any form of the narcotic to be in disrepute on the ground that the use of it, though moderate at first, leads after a time to a habit. The habit leads to an excess, and thus the consumer ultimately becomes unable to give it up.

The moderate use of bhang alone may conduce to good health, but for the above reason the use of the drug is in itself to be condemned.

I am not aware of the custom of worshipping the hemp plant.

34. It would be a serious privation, I think, to the consumer to forego the consumption of the drug. The habit of consuming the drug itself is such as cannot be left at once, and if so left, the consumer is sure to feel much for it and to be for a time madlike and dispirited.

As explained in answer to question No. 20, the consumers are estimated to be 1,315; of these I estimate three-fourths to be consumers of bhang and one-fourth those of ganja.

35. It would be feasible to prohibit the use of the two drugs, ganja and bhang, but it should be done gradually in order to avoid discontent and privation, which would otherwise be the result. But if the prohibition of the use of the drug be enforced at once, we naturally must expect the illicit con-

sumption thereof, if possible, or the habitual consumers will have recourse to some other alcoholic stimulants. The sudden prohibition will lead to serious discontent among the consumers, who are proportionately so few in this district that the discontent will not be politically felt, and therefore cause no danger. The danger will be serious where the number of consumers is large enough in proportion to population.

37. Not known, as charas is not available in the district.

38. The different effects on consumers of the three different preparations of ganja cannot be explained, as only the flat ganja is available and consumed in the district.

39. No; the smoking of ganja is said to be more injurious to consumers than the bhang eating and drinking. The smoking is said to produce asthma, phlegm and cough in the consumers of ganja. The smoking often causes consumers to be immediately senseless and sometimes lose their lives.

40. Yes.

41. The ganja and bhang being digestive, the moderate use thereof may be beneficial in its effects—

(*a*) as a food accessory;

(*b*) being an intoxicant it may give staying-power under severe exertion and may serve to alleviate fatigue;

(*c*) being hot, it may serve as a preventive of disease in malarious and unhealthy tracts.

42. The moderate use of the drug is harmless so long as it is *moderate.*

43. Yes.

45. The habitual moderate use of the drug produces noxious effects, physical, mental and moral. In the first place, it is to be remembered that the use of these drugs, especially of ganja, is generally made by low classes of society, who cannot arrange to eat substantial food. The use of ganja for smoking soon works on such men. It produces too much heat in body and thereby causes loss of blood, which impairs his constitution. It also injures his digesting power and causes loss of appetite. The drug seems to have a natural tendency to increase the digesting power which is produced in the consumer thereof. If with a digesting power substantial food be used, it must produce large quantity of blood in body, which may conduce to a healthy constitution. But the consumers being generally without means, are unable to obtain substantial food in proportion to the increased digestive power, and thereby the heat works its effects on the internal system, and then the digesting power ultimately dies away having nothing to live upon. The heat thus produced may naturally lead to cause dysentery in a consumer. Bronchitis and asthma are also the effects visible in a ganja smoker. The consumer of ganja is gradually weakened and becomes peevish, quarrelsome, and reckless of consequences. The smoking of ganja induces laziness and excites carnal desires. It also works on brain, but does not produce insanity of permanent nature.

58. I am acquainted with the present system of excise administration in the province of Berar. The right to retail sale of hemp drugs is at present sold with that of opium, whereby the revenue from the sale of these drugs cannot be separately ascertained.

59. It is therefore necessary to auction the right to retail sale of the drug separately from that of opium. No other improvement in the present system appears necessary.

60. I think the cultivation of the ganja-bearing plant and the process of its preparation are sufficiently controlled, and the system requires no modification.

61. Charas is not produced in the Buldana district.

62. It is already controlled under the present system of administration.

63. I have no objection to the present system of retail sale of ganja, etc. There is no wholesale sale in the district. The present system appears to be working well.

64. I have no objection to the existing regulations governing the export (which is totally prohibited) and import, etc., of these drugs.

65. The taxation of ganja and bhang is under the present system not separately levied, and therefore it cannot be known whether taxation on ganja and bhang, with reference to each other or to alcoholic or other intoxicants, is reasonable or otherwise. However, the demand of the drugs as compared with alcohol or other intoxicants is so low that a heavier taxation thereon does not appear necessary.

66. Only flat ganja is available and used in the district, and therefore no different rates of taxation need be levied.

67. The incidence of the tax on the consumer is not capable of being ascertained under the present system. I cannot therefore say whether I have any objection thereto.

68. There are shops licensed for the sale of these drugs in the district, but the preparations of the drugs are not permitted to be consumed on the premises, and therefore I have nothing to say against these shops.

69. The wishes of the people are generally consulted through the contractor before a shop is opened in any locality. The tahsildar is generally referred to for the purpose.

70. No facts regarding the importation or smuggling of hemp drugs from Native States have ever come to notice. The duty on the hemp drugs used is not fixed by Government. The cost of the ganja used is paid by the contractor at the time of purchasing the same at places from which it is imported into the district.

---

8. *Evidence of* ABARAO JAUROO, *Maratha, Karbhari Patel and Special Magistrate, Khamgaon, Akola District.*

1. I cultivate ganja for the last several years and know how it is grown. I don't know anything about the preparation of the drug or its effects.

3. So far as I know, the hemp plant does not grow spontaneously.

5. I don't know of any special conditions. It requires the same soil, rainfall, and claimate as the other dry-weather crops.

7. I know of Khamgaon and Sutala only where hemp plant is cultivated for production of ganja and bhang only. Charas is not prepared, nor is fibre or seed obtained from the plant.

8. There has been a decrease within these seven

or eight years owing to the rule requiring such cultivators to obtain a license for hemp cultivation.

9. Ganja seeds do not germinate if sown by themselves. They are, as a rule, mixed up with the seeds of ambadi (*Hibiscus cannabinus*) and then sown. This ensures a good crop. The soil should be well manured and the seeds sown about the time of sowing cotton (June or July).

10. They are of the same class as other cultivators.

11. I don't know. The seeds are imported from Khandesh, and I can't say if these are of wild hemp or not.

14. Ganja and bhang are the only two products prepared in Berar. But I can't give the locality nor the extent.

16. Yes; bhang can be and is generally prepared by the people in their houses. Yes; bhang can be prepared from the hemp plant wherever grown, also ganja. But I don't know about charas.

17. Not restricted to any particular classes.

18. Ganja and bhang do not deteriorate for two years or so, but lose their effect entirely afterwards. I can't give any cause for deterioration. I don't know any special measures.

19. Ganja is mixed up with some kind of *dal* and made into pies; some prepare dishes with mutton.

20. Ganja is mostly smoked by sadhus and others who have to travel much. Also those who can't afford to drink or take opium, smoke ganja. I can't say anything about charas.'

21. So far as I know, round ganja is preferred for smoking.

24. There is no particular difference. Those who drink also eat. Generally Marwaris and Brahmins, who are prohibited from drinking liquor, eat or drink bhang.

25. It has increased. I say this from the rise in the price of ganja within the last ten years or so. Formerly only the old and grown up people used to partake of the drug, but now even boys also take it.

29. Tobacco is ordinarily mixed with ganja. I don't know of any other. Dhatura is also mixed, but only by those who wish for a strong smoke having narcotic effect. Tobacco is mixed to soften the effects of the ganja. I don't know bhang massala.

31. Yes; it is easily formed. It is difficult to break off. I can't say about the development into excessive habit.

39. I have noticed that those who eat and drink ganja or bhang are healthy and in better condition than those who smoke. But I can't give reasons.

40. I don't know.

41. I don't know. But bhang helps digestion and increases appetite.

68. There are shops, but I can't form any opinion.

---

9. *Evidence of* Mr. A. Ardagh, *Deputy Superintendent of Excise, Ellichpur.*

1. Served in the Bombay and Berar Excise Department for the past fourteen years.

2. There is only one kind of ganja made in the Berars (flat). Bhang is not specially prepared, but the chur or chura (broken ganja dust) which accumulates in the course of trade is called bhang. No charas is collected in the province.

3. No district.

4. Don't know.

5. Cannot say.

6. Don't know.

7. (*a*) Yes.

(*b*) No.

(*c*) No; small leaves of the plant round the buds which fall while being prepared or in course of trade are known and used as bhang in this province, but said not to be so good as that specially cultivated and obtained from the male plant.

(*d*) No. It is cultivated in the Akola and Amraoti districts. Extent not known personally.

8. and 9. Have no knowledge.

10. Generally cultivated by malis, who are able to distinguish male from female plants.

11. Not known.

12. None.

13. Yes; by fees having to be paid to Government and licenses taken out, but not to any district. At present it is grown only in the Akola and Amraoti districts, but they were not selected by Government. I do not know anything about the conditions of soil, etc., for cultivation of hemp.

14. (*a*) Yes.

(*b*) No.

(*c*) No, not specially.

In the Akola and Amraoti districts.

15. Ganja is made by picking off the flowering tops of the plants; placing them in small bundles on the threshing floor, and driving bullocks round and round over them to be trodden flat.

A. Ganja is prepared for smoking by picking off the buds from the stock, triturating them in the palm of the hand with water and pressing out the water. This process is repeated till the water runs clear; the resinous substance left is then mixed with tobacco and smoked in an ordinary country pipe (*chillum*).

B. Bhang is prepared by the leaves being washed, dried on a fire in an earthen pan, triturated and mixed with black pepper, spices, etc. according to taste or means; and, a quantity of this being taken into the mouth, is washed down or swallowed with water.

C. For drinking it is washed, then finely ground, then mixed with water or milk, strained, and the fluid is mixed with sugar, spices, etc.

16. No, bhang is not prepared specially in this province, but the small leaves which fall from the dried buds are sold as bhang. Actually it is chura and not bhang. It can be prepared from the plant wherever grown. Cannot say if ganja and charas can be prepared from the wild plant.

17. For smoking, drinking, and eating by the sadhus, bairagis, gosains and fakirs generally, and also by others addicted to its use.

18. Ganja and bhang, if kept quite dry, will keep for two or three years; after which it becomes mildewed and useless. It is said that no measures will suffice to keep it good for more than three years.

19. Yes.

20. *Vide* answer to question 17 for ganja. Charas is not made here.

21. Flat ganja. No other kind here.

22. None in the province.

23. No.

24. All classes eat and drink, but those that eat are very few as compared with those that drink.

25. Said to be on the increase. It is much cheaper than opium and spirit.

26. Cannot say. Both ganja and bhang are consumed in moderation by most of the habituals; those that use them in excess are few.

27. *Vide* answer to question 17. The habit is acquired by association with habitual users.

28. (*a*) Six masas (½ tola) } About six pies per tola.
(*b*) Two and a half tolas }

29. (*a*) In ganja—tobacco.

(*b*) Bichnak root and dhatura seed by confirmed excessive smokers to produce extra intoxication.

Rose buds, aniseed, cucumber seed, coriander seed, almonds, jedbund, black pepper, etc.

30. Not consumed in solitude. It is almost wholly confined to the male sex, but not to any time of life. Children, however, do not take the drug.

31. Yes; it becomes a habit if taken regularly for ten or twelve days; but it is not difficult to break off. If the user does not control his wish to obtain the same full effect he experienced when he first began the habit.

32. None, except at the festival of Maha Shivaratri, when it is the custom to offer bhang and ganja to the god, and for the worshippers to consume it afterwards. This custom is not essential, and the quantity consumed is in moderation and is not likely to lead to the formation of a habit.

33. It is not considered to be an evil practice and degrading to the persons that use all or any of these drugs. There is a fear that the consumer may so far forget himself under the influence of the drug as to do or say something disgraceful. The plant is not worshipped at all.

34. To religious mendicants, but only for a week or two, during which, it is said, they would suffer pains and aches in their arms and legs. Can't say what is their number.

35. The use of all these drugs could be prohibited. They would at first, of course, be used illicitly, but the cultivation of the plant being strictly prohibited, the source of supply would be cut off, and the drugs would be unobtainable. No serious discontent would be caused, nor would such as arises be any danger to the State. There is no doubt that the suppression of ganja, etc., would be followed by a greater demand for alcoholic drinks or opium, or it may even drive some to bichnak or dhatura.

36. No reason.

37. Don't know.

38. None, if they are pure, but chur is weaker in intoxicating powers in proportion to weight.

39. Smoking is more injurious than either eating or drinking; the former form of taking the drug flies to the head quickly, it is said, and is the more injurious.

40. Can't say.

41. No; they simply produce intoxication.

(*a*), (*b*) and (*c*) No.

(*d*) Do not know.

42. I believe it is harmless, for it simply produces slight intoxication, which pleases the consumer.

43. Yes.

44. Slight intoxication and pleasurable sensation; but it does not allay hunger, nor create appetite. The effect lasts about two hours. The after-effects are a feeling of dullness and there is an inclination to indulge in some more.

45. Liver and lungs get deranged, producing eventually asthma. Mental condition becomes excited, and in the end stupidity sets in, and morality is blunted. I am not aware that it brings on dysentery. It is said to produce insanity in those who take it in excess, but of what type, whether temporary or permanent, &c., is not know to me. I am not acquainted with any cases of insanity, and therefore cannot give an answer to the previous paragraph.

46. See above answer.

47 and 48. Can't say.

49 to 53. Don't know.

54. This is said to be the case.

55. First sentence—Don't know. Second sentence—Yes.

56. Have no personal knowledge.

57. Have not heard that they are either eaten or drunk.

58. It is capable of improvement.

59. By reduction of number of shops for its sale, separating its sales from those of opium. Increasing the license fees for cultivation and importation and restricting cultivation to certain specified areas. Reducing the quantity that may be sold by retail to 3 tolas. The above would reduce the production and enhance its value, making it more difficult for consumers to obtain, and when obtained, they would have it only in small quantities, sufficient to last for from one to five days according to the habit of consumer.

60. I think the cultivation should be reduced by charging higher license fees and restricting the area where it may be grown. The owner should also be compelled to keep a true account of the quantity of the drugs obtained from his fields, sold, &c.; the drugs themselves being kept in a licensed place open at any time to Government officers. The cultivator should be bound by his license to sell to none but persons licensed to sell these drugs; we would then have better control over the drugs.

61. No charas is produced in this province.

62. See answer to questions 60 and 61.

63. See answer to question 59. No subletting of the farm should be allowed.

64. The fees should be enhanced, and the import, export, and transport of the drugs should be under passes or permits obtained from special responsible Government officers. This would give less opportunity for smuggling.

65. Too little. Ganja, etc., are too cheap as intoxicants compared with opium and alcoholic

drinks. Six pies worth of the drugs, an anna's worth of opium, and four annas worth of spirituous liquor will produce equal intoxicating effects.

66. No.

67. It is too low.

68. No shops or places are licensed for the consumption of the drugs on the premises. If they were allowed, they would become the resort of bad characters, beggars, and generally those who do not care to work honestly for their living, and the daily meeting together of such characters would tend to organized crime.

69. No; the people, I think, ought to be consulted.

70. First paragraph—No. Second paragraph—I believe so. Third paragraph—Not to my knowledge.

---

10. *Evidence of* Mr. J. C. Watcha, *Excise Inspector, Ellichpur.*

1. Served in Nasik, Ajmere-Merwara, and Ellichpur as Farmers' Agent and Excise Inspector for eleven years.

2. Yes. Only one sort of ganja is used in this province of Berar, *i.e.*, flat. Ganja and chur are locally known in this province, while chur is known by the name of bhang.

3 to 6. No knowledge.

7. (*a*) Yes.

(*b*) No.

(*c*) No, but the chur is used as bhang.

(*d*) No.

In Amraoti and Akola zillas of this Berar province; extent, cannot say.

8. No knowledge.

9. Sown in the month of June like vegetable seeds; grounds are manured before sowing. Male plants are cut in November, and the female plants' buds are picked in December.

10. Same class as other agriculturists.

11 and 12. No knowledge.

13. Yes. In whole of the Berar province.

14. (*a*) Yes.

(*b*) and (*c*) No.

In Amraoti and Akola zillas; extent cannot say.

15. No knowledge of wild plant.

(*a*) Cultivated ganja for smoking is only prepared in this province by picking off buds from hemp trees and being trodden under bullocks' feet to make them flat, afterwards taking a bud and washing by rubbing under palm of hand with a finger and mixing with tobacco.

(*b*) Ganja is not eaten, but smoked in this province.

(*c*) Chur, called bhang, is drunk or eaten: first it is washed, then ground on stones, strained and mixed with massala, milk or simple cold water, in this province; and elsewhere eaten by baking and mixing with sugar and ghee. This is called "majum."

16. It is not prepared in the houses, but purchased from bazar and prepared to drink or eat.

Yes, it can be prepared from the hemp plant wherever grown.

17. By agriculturists who grow plant. Majum is made by the dealers.

18. Yes, if they are kept in damp places. They lose effects in about a year. If kept with care, last for two years at the most. Dampness is the cause of deterioration. Require to be kept in dry places and turned over and over.

19. Yes, only for smoking.

20. Everywhere by all jogis and fakirs, and few others.

21. Flat ganja is used in Berar province and it is preferred for smoking, while chur is preferred for drinking.

22. No charas is used in Berar province.

23. No, bhang is not used for smoking in this province.

24. All classes eat and drink bhang, but it is chiefly drunk by Marwaris and up-country Brahmins.

25. On the increase on account of opium being dear and cannot drink liquor on account of religious prejudices and dearness.

26. (*a*) Not many in this province.
(*b*) All jogis and fakirs.
(*c*) and (*d*) Few.
} Cannot give proportion.

27. Mainly from religious sets. The habits are acquired by association.

28. About ½ tola costs quarter anna; 2 to 3 tolas cost one to one and-a-half anna.

29. (*a*) Ordinarily tobacco, to make it burn.

(*b*) Exceptionally dhatura, for intoxication.

Rosebuds, aniseed, almond, coriander seeds, cucumber seeds, and black pepper.

30. No knowledge of solitude; taken in company. Yes, it is mainly confined to males; not confined to certain limit of life. It is not usual for children.

31. Yes, it is easily formed by daily practice. It is not difficult to break off. Yes, it is taken to excess gradually.

32. It is customary to drink bhang only on particular Hindu holidays, chiefly on Maha Shivaratri and Holi, commonly called Simga; neither religious nor essential; if only taken on holidays, it does not form a habit and is not injurious.

33. It is taken as a bad practice. There is no social or religious opinion. It spoils the constitutions of people; it weakens the mental power. There is no custom of worshipping hemp plant.

34. It would be a serious privation to jogis and fakirs to leave it off; it is considered by them as a part of their jogiship.

35. It would not be feasible to prohibit all of them; it will be consumed illicitly. By putting a check to cultivation. It would occasion serious discontent to religious sects. It would not produce any political danger. Yes, some will resort to liquor and some to opium.

36. No, because spirits are dear.

37. The effects of both are same, but the charas is worse, as it is stronger.

38. The effect of round and flat ganja is just the same, but effect of chur is slight.

39. Smoking is more injurious than drinking and eating, because the smoking affects the constitution sooner than drinking or eating.

40. Yes, it is used as medicine and also for cattle.

41. No, it is not beneficial at all.

(*a*) No.

(*b*) Yes, for a time being to a habitual smoker or drinker.

(*c*) and (*d*) No knowledge.

42. The moderate use of these drugs is not harmless, because by moderate use it leads generally to excess.

43. Yes, they are inoffensive.

44. Slight intoxication to the habitual consumers. Yes, for time being only it is refreshing. Yes, it produces intoxication. Yes, it puts a stop to hunger gradually. No, it does not create good appetite. Moderate effect from one to two hours, and excessive for a longer time. Yes, dullness is the after-effect. Yes, excessive smokers are inclined to smoke some more; without that they cannot do.

45. Yes, it affects physically on the liver, lungs and brain; diminishes mental power. Yes, it does impair the constitution. Yes, it causes indigestion and loss of appetite gradually. It causes bronchitis and asthma. Yes, it does impair morality and induce laziness. Yes, it deadens the intellect and produces insanity if taken in excess. No knowledge of type; cannot say temporary or permanent.

49 and 50. Yes, it produces impotence after a long time.

51 to 54. No knowledge.

55. Yes, they induce their victims to partake of drugs to further their design. Complete stupefaction can be effected without any admixture only to people who are not in habit at all.

57. To my knowledge ganja and charas are never eaten or drunk, but only smoked.

58. Yes, it requires improvement.

59. To whole Berar province cultivation of these drugs should be lessened by heavy license fees; also on import, export, and on wholesale sale; and for retail sale the maximum quantity should be fixed to the lowest quantity.

60. It should not be allowed to be sold wholesale by any cultivator to any wholesale purchaser without a permit from a competent Government authority, as well as cultivators should not retain the crops without license, and a heavy fee should be levied on cultivators; also retail sale license to be granted to respectable person or party for each district.

61. No charas is produced in this province.

62. Yes, same as No. 60.

63. Same as answer to No. 59.

64. Same as answer to No. 60.

65. Intoxicating drugs such as bhang, ganja, and charas are cheaper than opium and alcoholic liquor, because one anna worth of liquor would not give satisfaction to a quarter anna worth of ganja and charas consumer; so there is no objection to taxation being increased on these drugs.

66. No, it should be in equal.

67. In my opinion there is no objection to the present method of taxing.

68. Licensees are not allowed by the license granted to them to allow consumers to consume drugs on the premises, and such method should be continued to prevent facilities for habitual smokers.

69. No, people are not consulted, and they ought to be consulted to know the reason whether in favour of these drugs or against, whatever it may be.

70. No. Yes, duty is paid. No.

---

11. *Evidence of* WAMAN GANESH, *Tahsildar, Wun.*

1. I am answering the questions regarding the matters relative to ganja from the information obtained from the contractors and those who smoke ganja in this taluk.

2. The definition of ganja given by Dr. Prain in his report of 21st June 1893 is correct. In this taluk ganja is known by three different names—ganja, bhang and charas. But it seems that charas is not received in this taluk, nor seen by any one. Only it is heard by name. The definition of ganja and bhang given by Dr. Prain is accepted by all; but, in fact, as there is no cultivation of ganja in this taluk, nothing can be said positively.

3. Ganja does not grow in this country at all, nor can it be positively said in what districts it grows. But from the information received it can be said that ganja is always imported in this taluk from Khandwa, and from this it seems that ganja might be growing abundantly in the district of Khandwa, province Nemad.

4. Ganja is known in this taluk by two different names—ganja and bhang. Ganja is prepared from the buds of the trees, and bhang from their dried leaves. These two are obtained from one tree.

5. As there is neither ganja cultivation nor natural growth of jungli ganja, nothing can be said for certain what sort of climate and soil are congenial to the growth of ganja.

6. Nothing can be said about the growth of jungli ganja being dense or scattered only, because it does not at all grow in this taluk. But some men who had been to Haridwar say that there is jungli ganja in that district, and it grows densely like *tarota*.

7. In this taluk ganja is neither cultivated for production of ganja nor bhang, nor charas, nor for its seeds. Though Government allows the cultivation of ganja on payment of Rs. 10 per acre, still nobody has cultivated it till now.

8. Nobody has at any time cultivated ganja in this taluk in his fields, nor is it in practice to do so. Only those who smoke ganja were in the habit of cultivating some plants in their private compounds. But even that is now put a stop to, as it has been disallowed by Government.

9. As there is no custom of ganja cultivation in this taluk, nobody can mention the method by which it is cultivated. In Moglai time it was

the practice of planting ganja at the back of the house. While asking these men personally, they state that after ganja has been purchased from bazar, the seeds being collected therefrom are planted in the *gadda* at the back of the house and are watered till their growth. If the plants get flowering tops, they are called male ganja. Male ganja is not used for smoking purposes. It is only used for drinking, which is called bhang. The smokers of ganja destroy these plants. If the plants do not get flowering tops they are called female ganja. These plants are only preserved, and when they receive buds the same are cut and kept in the hole in the ground in the shape of a *juddi*. This substance is used for smoking purposes. If care is taken of these plants they last for two or three years and grow very high. After they are ripened the branches of them are cut and kept in the shape of *juddi* till it is completely dried.

10. There is no particular caste which cultivates ganja. If permission is granted, ganja will be cultivated like grains in the fields by the cultivators, but the cultivation of ganja is not allowed in this taluk. In old times only those who are in the habit of consuming ganja used to plant hemp at the back of their own houses.

11. As there is no growth of the jungli ganja in this taluk, nobody knows whether the seeds of the same are used for the cultivation of ganja.

12. There is no custom in this taluk of cultivating ganja from the jungli ganja seeds, because there is no growth of jungli ganja in this taluk. It may, perhaps, be used in the countries where there is growth of this. No one can give reliable information about this. My opinion is that where there is a growth of the jungli ganja, the people there perhaps might be planting it in their fields for the purpose of bhang, but not for ganja, because ganja is not prepared at all from it. If people find any plant of jungli ganja they uproot the same, because they have no use of it, and besides it spoils other plants.

13. The cultivator who wishes to cultivate ganja will be allowed to do so on payment of Rs. 10 per acre; but as nobody has got experience of this, and as there is no cultivation in this taluk, the particulars as regards climate, soil, etc., cannot be supplied, but I think ganja is planted in the white soil and not in the sandy.

14. Neither ganja nor charas is prepared in this taluk: only bhang is prepared.

15. Ganja is imported from Khandwa. The substance which remains after the hemp plant has been trodden under foot is called bhang, and it is used for drinking purposes. The flowering tops of the hemp plant are cleaned two or three times with water, and after the water is extracted therefrom it is dried on pressing it in cloth; then this whole substance is mixed with tobacco and smoked in a *chillum*. This substance is called ganja. Nobody can say as to whether the jungli or cultivated ganja is used for any of these preparations. Bhang is used for preparing *ghatta*, and the method of preparing it is that the leaves, etc., are kept in water till they become tender. After they are taken out of the water they are made to powder on a stone along with other perfumery articles, and this whole substance is filtered and drunk. This is called bhang. Some people take this with sugar and milk; every one can prepare this at his own house.

16. Yes, the people buy the particular sort of ganja from the market and prepare bhang at their houses. Where there are plants of ganja, bhang can also be prepared of the leaves therefrom; but the custom of such preparation is not in this taluk. Best ganja cannot be had from jungli ganja plants. Such plants may be used for preparing bhang. Some people who had been to Haridwar say that the jungli ganja grows there.

17. It is not customary that any particular class of people prepare any of these drugs. The contractors only sell ganja. The Halwais sometimes prepare *yakuti majum* from ganja.

18. Any of these drugs does not deteriorate by keeping, but if it is kept for a long time the intoxicative power of them becomes weak. The limit of keeping these drugs is nearly two years. After this period the intoxicative power of these drugs becomes weak. If they are kept with care they remain in power for three or four years. Nobody can state what special measures can be taken to prevent deterioration, because every year ganja is imported from Khandwa. The countries in which the ganja is cultivated the people there sell it after one year. From this it seems that ganja can remain in good condition with ordinary care for five or six years, but if it is kept everywhere it deteriorates and gives a bad smell.

19. Ganja and charas are only used for smoking; they cannot be used otherwise. The contractors prepare *majum* through halwais, and sell it in Muharram by permission. Nobody can state in what other ways it is used.

20. I cannot say with certainty what classes of the people smoke ganja. Charas is not known in this taluk. Generally fakirs, gosains and labourers smoke ganja. It is a general opinion of the public that exertions of severe nature can be alleviated by ganja smoking.

21. The different kinds of ganja given in this question are not known to the people of this taluk. They smoke ganja which is imported from Khandwa.

22. Charas is not known in this taluk.

23. Bhang is never used for smoking, because it is less intoxicative than ganja; but the habitual smokers in time of need sometimes use bhang for smoking, but this happens very rarely.

24. Generally in the hot season most of the people of this taluk drink bhang. Bhang is not used for eating in this taluk. It is said that this is used in Hindustan.

25. The use of ganja and bhang is on the increase in this taluk. Day by day the state of the people becomes poorer and poorer; and as they have not got means to use any other costly drugs besides this they are obliged to use ganja. Among Hindus drinking of liquor is prohibited, and if they drink they are kept out of caste; but if they smoke ganja they are not kept out of caste. Under all these circumstances, I am of opinion that there is an increase as stated.

26. The proportion of the consumers of any of these drugs is as follows:—

(*a*) 10 per cent.
(*b*) 5 per cent.
(*c*) 2 per cent.
(*d*) 3 per cent.

27. I cannot give positively what classes of the people are mainly taken to these drugs. The habit of ganja smoking can be easily formed by association with the ganja consumers.

28. The average allowance and cost of each of these drugs per diem are as follows:—

(*a*) 3 pies.
(*b*) 2 annas,

29. The moderate consumers of any of these drugs mix ordinarily tobacco in ganja while smoking, and exceptionally the excessive consumers mix *kuchalla* and dhatura seeds with it. Some drink bhang with water and sugarcane, while some with sugar, milk and other perfumery things.

The excessive consumers mix dhatura seeds in ganja while smoking with the intention of making it more intoxicative.

30. Bairagis, fakirs, etc., use any of these drugs in company consisting of four or five members. The labourers smoke ganja at their own houses. The people think that ganja smoking is one of the mean acts. Those who are addicted to ganja smoking smoke at each other's houses. Bhang is also not prepared by one and drunk: it also requires a company of five or ten men. If any gentleman wishes to take bhang, he prepares it at home and drinks. It is mainly confined to the male sex of 20 years of age and above. Children never consume any of these drugs if they are under control; very scarcely any of the children take to these drugs. In Muharram alone it is said that bhang is drunk by all, *i. e.*, from youths down to elderly persons.

31. The habit of consuming any of these drugs is easily formed. It is difficult to break off at once. There is a tendency in the case of any of these drugs for the moderate habit to develop into the excessive.

32. There is no custom, social or religious, in regard to the consumption of any of these drugs, but in bairagis they consider it a religious custom and they drink. Drinking is generally excessive in them. It is likely to lead to the formation of the habit, and is thereby injurious.

33. Ganja smoking has been considered to be one of the mean acts by the people, because thereby one loses memory and health; it brings on cough and so forth. If bhang is taken moderately during the hot season it won't affect. There is no custom of worshipping the hemp plant in this taluk.

34. It is a serious privation to any class of consumers to forego the consumption of any of these drugs at once, because thereby they will not digest their food: they will suffer from purging, and so forth. This will last for two months and then it will be stopped. It is said that if any one wishes to break off this habit, ganja can be kept in buttermilk instead of water and then smoked, and thereby the habit of ganja smoking will be easily broken off. It is not injurious to drink bhang. There is a general custom to drink bhang in this taluk, and this habit can easily be broken off.

35. It is not feasible to prohibit the use of any of these drugs, because it is of a long standing. As there is a great number of the consumers of these drugs, it is impossible to stop it at once; and if it is so stopped the people will consume the drug illicitly. If the Government wants to prohibit the use of these drugs, I propose that some tax should be imposed on the consumers of any of these drugs, and thereby the number will be reduced. The quantity for the retail sale should also be reduced, but with all this, I don't think that it can be stopped at once. There is no doubt that there will be discontent amongst the consumers of these drugs, but it will not amount to a political danger, because the number of such people is not large. The prohibition will be followed by recourse to alcoholic stimulants by those who have got means to spend for them, and the rest will take to other drugs.

36. Reliable information on this head cannot be supplied.

37. So far as intoxication is concerned, there is, it is said, difference in the effects of charas and ganja smoking. Charas is too strong in its effect; ganja is not so: it can be smoked five, seven, and ten times during a day.

38. Reliable information on this head cannot be supplied.

39. The smoking of any preparation of the hemp plant is more injurious than eating or drinking, because by smoking it brings on cough and weakness. It is not mentioned in the medical books that ganja should be smoked.

40. Ganja is used in the treatment of cattle-diseases; but it is said that if it is administered to cows, buffaloes, etc., their milk is stopped. It is also used by native doctors as medicine, and they state that they have got authority in the medical books.

41. The moderate use of any of these drugs is beneficial in its effects—

(*a*) as a digestive;

(*b*) to alleviate fatigue under severe exertions;

(*c*) as a preventive of disease in malarious and unhealthy tracts;

(*d*) in no other way.

Labourers only use moderately any of these drugs for the purposes above named. The excessive use of any of these drugs is injurious to the health.

42. I consider the moderate use of any of these drugs is harmless.

43. The moderate consumers are inoffensive to their neighbours.

44. There will be no immediate effect of the moderate use of any of these drugs on the habitual and excessive consumers. It is refreshing to the moderate consumers: it produces intoxication; it creates appetite. The effects of it last for one or two hours. There are no after-effects.

45. (*a*) The habitual moderate use of any of these drugs produces noxious effects.

(*b*) It does impair the constitution in any way.

(*c*) It does injure the digestion and cause loss of appetite.

(*d*) It does cause dysentery only.

(*e*) Reliable information on this head cannot be applied. But if any new man takes to these drugs he is naturally to lead to immorality and debauchery.

It does deaden the intellect and produce insanity. It produces insanity in the case of excessive consumers. It is temporary and may be remedied if early steps are taken.

46. The reasons given above apply to this question also.

47. The habitual moderate use of any of these drugs does not appear to be a hereditary habit and effect in any way the children.

48. See answer above.

49. Some people use any of these drugs as an aphrodisiac. It is also used by prostitutes. The use for this purpose is injurious. Reliable information on this cannot be supplied.

50. It is said that the excessive use of any of these drugs brings on impotency.

51. The bad characters that we have got in this taluk are not generally the habitual moderate consumers of any of these drugs. Some of them are used to these drugs. I don't think that the

consumers of any of these drugs commit graver offences. They may, perhaps, commit petty thefts with the intention of getting money for this purpose, very rarely and in time of need.

52. I don't think that the excessive consumers of any of these drugs will commit offences of a graver nature.

53. It cannot be stated with certainty that the excessive indulgence in any of these drugs incites to unpremeditated crime. I have no knowledge of any case of murder being committed by such men.

54. Reliable information on this head cannot be supplied.

55. The criminals, in order to further their designs, induce their victims to partake any of these drugs and so stupefy them. Complete stupefaction cannot be induced without admixture.

56. Tobacco is always mixed with ganja for the moderate effects, and *dhatura* seeds for the excessive.

These seeds are only used by excessive habitual consumers for their personal use.

57. It is said that there is a custom of mixing ganja with other eatable things. I have no knowledge of this.

58. I consider that the present system of excise administration in this province is working well, and I do not think that any modifications are needed therein.

59. As there is no necessity of any improvements in the system of excise administration, the reasons called for are not given.

60. There is no cultivation of ganja in this taluk, and hence there is no management or control over it.

61. Reliable information on this head cannot be supplied.

62. There is no cultivation of ganja in this taluk.

63. I have no objection to the present system of wholesale and retail vend of any of these drugs.

64. I have no objection to the existing regulations in force in this taluk for governing the export and import of any of these drugs.

65. In my opinion the taxation on any of these drugs, *viz.*, ganja and charas, is reasonable and requires no alteration. Ganja should be sold by Government to the contractors by recovering tax thereon instead of selling it by auction. The ganja is sold by auction along with opium, and hence the revenue of ganja alone cannot be supplied; and I suggest that ganja should be sold separately from opium.

66. Reliable information on this head cannot be supplied.

67. I think, in my opinion, that the tax on ganja is very little, and the method of taxing is supplied in answer No. 65 above.

68. There are shops licensed for the sale of any of these drugs in this taluk. It is sold there only and not consumed on the premises.

69. When the shops were stationed first they were stationed with the consultation of the people, and as well as looking to their conveniences. It is fair, I think, that the people should always be consulted in opening these shops.

70. I have not heard of any case of smuggling of any of these drugs from Native States in this taluk. Ganja is always imported on pass after the duty has been really paid. There is no use of untaxed ganja in this taluk.

---

12. *Evidence of* Vickooji Narain, *Tahsildar, Kathapur.*

1. I am answering the questions regarding the matters relative to hemp drugs from the information obtained from contractors and others.

2. There is no cultivation of ganja in this taluk. Charas is not known to the people of this taluk. The dried flowering tops with tender branches of the hemp plants are called ganja. The plants being trodden under foot, the substance remaining therefrom is called bhang. Ganja is imported in this taluk from Central Provinces and Khandwa. As there is no cultivation of ganja in this taluk, the names given by Dr. Prain are not known to the people.

3 and 4. The information on these heads can't be supplied.

5. Nobody knows about raw ganja in this taluk.

6. There is no growth of raw ganja in this taluk.

7. There is no cultivation of the hemp plant in this taluk.

8 to 13. The information on this head cannot be supplied.

14. Ganja is imported in this taluk from other provinces, as there is no cultivation of it here.

15. *The ganja which is imported in this taluk is used for the following purposes:—*

(1) For smoking.

(2) For eating.

(3) For drinking.

(1) The flowering tops are used for smoking. It is first cleaned in water and after the water being extracted therefrom, the substance remaining is mixed with little quantity of tobacco and smoked in *chillums*.

(2) The substance which remains from hemp plants after being trodden under foot is used for this purpose. It is first cleaned with water and after the water being extracted therefrom, it is fried, and mixing it with sugar and other perfumery articles, the same is made to powder, which is used for eating purposes.

(3) The substance above described is used also for this purpose. The ganja is first cleaned with water and kept therein till it becomes tender. It is then made to powder on a stone and mixing it with water, sugar, and milk, etc., the whole substance is filtered and drunk.

16. The bhang is not prepared generally by the middle class people in their houses. They do not know how to prepare it. They have no knowledge of the hemp plant. They never prepare charas.

17. The information on this head cannot be supplied.

18. Any of these drugs, *i. e.*, ganja and bhang, can keep its effect for about one year, after this period it has no effect. Charas is not known in this taluk.

19. Ganja and bhang are used for smoking, eating

and drinking purposes. They are also used as medicines. Ganja which is imported from Khandwa is used for smoking and eating purposes, and the one from Northern India is used for drinking.

20. The proportion of the people who smoke ganja cannot be given. Many classes of the people smoke ganja, but chiefly fakirs, gosains, bairagis and labourers smoke ganja. Ganja eating and drinking is a general custom even in well-to-do people.

21. Ganja which is imported from Khandwa, etc., is used by the people of this taluk.

22. Charas is not imported in this taluk.

23. Bhang is never used for smoking.

24. Reliable information on this head cannot be given.

25. It cannot be stated that there is increase of these drugs in this taluk.

26. The proportion of the consumers of these drugs is as follows:—

(*a*) 25 per cent.

(*b*) 75 „

(*c*) 5 „

(*d*) 25 „

27. Only those who are idle, funny, and without any employment mainly lead to these drugs.

28. The information required has been omitted while answering this question.

29. Habitual excessive consumers mix dhatura, kuchala and bachnag with these drugs with the intention of making it more intoxicative.

The information on the second head cannot be supplied.

30. For the consumption of any of these drugs in solitude one pays from his own pocket, but in company they collect subscription. It is mainly confined to the males of over 20 years of age. Children never consume any of these drugs.

31. The habit of consuming any of these drugs is easily formed, but the habit of smoking is difficult to break off. There is a tendency in any of these drugs for the moderate habit to develop into the excessive.

32. There is no custom, social or religious, in regard to the consumption of any of these drugs, but this plant is called "shio-walli," and on the day of Maha Shivaratra bhang or ghota is drunk, but this is not regarded as essential. It is not likely to lead to the formation of the habit.

33. There is no custom of worshipping the hemp plant on any occasion in this taluk.

34. There seems to be no serious privation to any class of consumers to forego the consumption of any of these drugs they use.

35. It is feasible to prohibit the use of any of these drugs amongst the family men, but it is not in sadhus, fakirs, bairagis, etc., and they only will be discontented by the prohibition. It must be made by government laws, and will not amount to a political danger. The prohibition will be followed by recourse to alcoholic stimulants and other drugs.

36. Reliable information on this head cannot be supplied.

37 and 38. Information on this head cannot be supplied.

39. Not solved properly according to the question.

40. Native doctors prescribe any of these drugs on account of its medicinal qualities. It is also used in the treatment of cattle-disease.

41. The moderate use of any of these drugs is beneficial in its effects—

(*a*) as a digestive;

(*b*) to alleviate fatigue under severe exertion.

(*c*) and (*d*) This is not known to me.

For the purposes mentioned above, chiefly bairagis, fakirs, Gonds, Banjaris, etc., use these drugs moderately or excessively.

42. The moderate use of any of these drugs is harmless.

43. Not properly solved.

44. There is no immediate effect of the moderate use of any of these drugs on the habitual consumer. It brings on intoxication after a while. It is refreshing. It produces intoxication. It does create hunger. There are no after-effects. The want of subsequent gratification produces uneasiness.

45. The moderate use of any of these drugs produces intoxication, cough, weakness, asthma, immorality, and madness during intoxication.

46. Just as above, but in more degrees, in the case of habitual excessive consumer.

47 and 48. The habitual moderate use of any of these drugs appears to be no hereditary habit.

Nothing can be said positively about this.

49 and 50. There is a tendency in the case of any of these drugs for the moderate habit to develop into the excessive.

51 to 52. Reliable information on these heads cannot be given.

53. I have not heard if any grievous offence has been committed by excessive consumers of any of these drugs.

54 to 57. Reliable information on these heads cannot be supplied.

58. I do not think that any modifications should be made in the present system of excise administration.

59. No modifications are required.

60. Ganja is not cultivated in this taluk, and the ignorant people have no knowledge how to cultivate it.

61. Charas is not prepared in this taluk.

62. There is no cultivation of ganja in this taluk.

63. I have no objection to the present system of wholesale or retail vend of any of these drugs.

64. I have no objection to the existing regulations governing the import of any of these drugs.

65. This is not properly solved.

66. Flat, round and broken ganja is not imported in this taluk from Bengal.

67. I have no objection to the present method of taxing any of these drugs.

68. Contractors can only sell ganja in this taluk.

69. Shops are opened with the consent of contractors of these drugs.

70. I have not heard of any case of smuggling of hemp drug from Native States.

13. *Evidence of* VINAYAK APPAJI KAUR, *Brahmin, Officiating Tahsildar, Darwa, Wun District.*

1. I am answering the questions regarding the matters connected with hemp drugs from information obtained from the contractors and the consumers of the same.

2. The definitions given in this question of the several forms of hemp drugs are very minute, but as there is no ganja cultivation in this taluk, the people have no knowledge of these definitions. This product is locally known by the following names:—(1) Ganja, (2) bhang, (3) charas.

(1) Ganja consists of the dried flowering tops and tender branches of the hemp plants.

(2) Bhang consists of the smallest parts which remain after the hemp plant being trodden under foot.

(3) Charas is not imported in this taluk.

3. The people of this taluk have no knowledge as to where the hemp plant grows spontaneously. Some say that these plants grow in the countries adjoining the Himalaya mountains; but this information is not reliable. *Ran* ganja is sometimes found in the jungles, but nobody says as to whether this is the same plant of which the information is required. No one can say as to whether this plant brings on intoxication. This plant is scarcely found in the jungles.

4. This plant is known by the name of *ran* ganja, and it has been already mentioned that this plant is different from the one under discussion.

5. No reliable information can be given on this head.

6. This plant is never found in the jungles, and hence the information as to its growth cannot be supplied.

7. There is no cultivation of the hemp plant in this taluk for any of the drugs named.

8. As there is no plantation of the hemp plant in this taluk, this question need not be solved.

9. No particulars can be given regarding the method of cultivation of this plant.

10 to 13. The information on these heads cannot be supplied, as there is no cultivation of this plant.

14. There is no plantation of the hemp plant in this taluk, and hence the ganja and bhang are not prepared from this plant. These are always imported from Malwa *viâ* Khandwa. The flowering tops and tender branches of the hemp plant are called ganja, while the remaining substance is called bhang. Charas is not known in this taluk.

15. *Ran* ganja is not found in this taluk. The following articles are prepared from the hemp drugs plants:—

(*A*) Ganja for smoking;

(*B*) Majum, yakuti, for eating;

(*C*) Ghota for drinking.

(*A*) The ganja should be cleaned and then washed seven times in water, and after the water has been extracted therefrom the ganja is mixed with an equal quantity of tobacco and smoked in *chillums*.

(*B*) The ganja is boiled along with water in a pot, and after it is dried it is mixed with an equal quantity of ghi and then boiled and put into a small gunny bag, and the bag with its contents being twisted with the assistance of ropes, the substance extracted therefrom is kept in a "parat," and after it has been mixed with sugar, small pieces are made of it, which is called majum.

The essence of the pure ganja should be extracted and mixed with a little quantity of the juice of jowri roots, dhatura seeds, kuchala, and aconite, and the whole being mixed with sugar, saffron, and other perfuming substances, it is called yakuti.

(*C*) The bhang being cleaned and made into powder and mixed with poppy heads, pepper, rose buds, etc., the mixture is called ghota. Some people add milk to this.

16. Ghota is prepared by the people in their houses. It can be prepared from the hemp plant wherever it grows. *Ran* ganja is not cultivated in this taluk, and hence the other substances, charas and bhang, cannot be prepared.

17. Ganja is prepared and smoked by fakirs, gosais, etc. This ganja is not prepared for sale. Halwais and other shopkeepers prepare majum and yakuti for sale in the fairs.

18. Yes; it does lose its effect by keeping for a long time. It can be kept with ordinary care for two years. It deteriorates by dampness. It must be kept in Sindhi mats, etc., and care should be taken against damp air to prevent deterioration.

19. Charas is not prepared in this taluk. Ganja is used for smoking.

20. This information is given in answer No. 17 above. The accurate percentage cannot be given; but from the records it seems that 19,640 people were the usual consumers during the last seven months, and the average for twelve months will be 33,668 in a population of 156,580 of the taluk.

21. Flowering ganja is prepared by the people; but the patti ganja is imported in this taluk and used.

22. Charas is not used in this taluk, and hence it is never imported.

23. Bhang is also used for smoking; but it is only the usual consumers of ganja who do so. The percentage and the classes of the people are given respectively in answers Nos. 17 and 20 above.

24. This has been solved in answers Nos. 17 and 20 above.

25. The increase and decrease in any of these drugs cannot be correctly given; but there seems to be a decrease. The quantity used during the last five years is as follows:—

Year.	M.	S.
1887-88	39	7
1888-89	21	14
1889-90	65	7
1890-91	44	9
1891-92	26	26

26 and 27. Reliable information on these heads cannot be given.

28. The average allowance per diem to habitual moderate consumers is 3 pies and to habitual excessive consumers 1 anna.

29. Tobacco is one of the ordinary ingredients mixed with ganja, but exceptionally kuchala, dhatura seeds, etc., are mixed with ganja to make it stronger. Bhang massala is described in answer No. 15 (*C*) above.

30. The consumption of each of the these drugs is practised by males of 20 years of age and above in solitude or in company. Children never consume any of these drugs.

31. The habit of consuming any of these drugs is not easily formed. It is not difficult to break off. There is no tendency in any of these drugs for the moderate habit to develop into the excessive.

32. These drugs are not used as one of the social or religious customs, and hence the further particulars cannot be satisfactorily described.

33. The consumption of each of these drugs is generally regarded as a mean act by the people. The consumers of each of these drugs are generally disrespected. It is the opinion in general that these drugs are injurious to the consumer's health. The hemp plant is never worshipped on any occasion; but in case the habitual consumer dies, the hemp plant is kept near his corpse at the time of his funeral ceremony. The use of any form of the narcotic is generally in disrepute, because there is a firm opinion among the public that the use of these drugs is one of the mean acts, inasmuch as the social or religious customs are concerned.

34. There would be no serious privation to any class of consumers to forego the consumption of the drugs they use. These drugs have got one or two more troublesome effects than the opium, liquor, etc. Still in opium and liquor there are some permanent effects which are impossible to be checked at once, and hence there would be a serious privation to the consumers of these to forego the consumption. This is not applicable to the hemp drugs consumers.

35. It is feasible to prohibit the use of all these drugs. By this I mean that the cultivation of ganja should be stopped. The prohibition of all these drugs will not, I think, occasion serious discontent amongst the consumers, and it would not also amount to a political or social danger.

The consumers of these drugs are generally bairagis, fakirs, kanphatias, etc. The number of such people is not large in this taluk. In family men such habits are very rare. If the use of the hemp drugs is prohibited, these men will have recourse to alcoholic stimulants or other drugs producing intoxication, without which they will not pull on.

36. It appears that the men who are used to the hemp drugs are addicted to a certain extent to alcohol. I attribute this change to the causes of getting the alcohol ready, and they have got a peculiar taste. I cannot offer any proof of its reality, but it is said that the liquor is much consumed.

37. As the charas is not used in this taluk, the information on this head cannot be given.

38. There are different kinds of effects on the consumers of ganja and bhang, of which the former is stronger than the latter in its effects.

39. The smoking of the hemp drugs is more injurious than that of drinking or eating, but this habit is not so commonly in use as that of smoking.

40. See medical officer's report attached.*

41. Moderate use of ganja or bhang is beneficial in its effects as a digestive, and also gives staying-power under severe exertion or exposure and alleviates fatigue, and is also effective as a medicine in malarious and unhealthy tracts. No information can be given for clause (*d*).

The labouring classes naturally use this drug in order to alleviate fatigue. But in this taluk such people generally use liquor instead of this drug, and next to this they use opium.

42. Moderate use of these drugs is to some extent beneficial, for which the explanation is already offered. It seems that the moderate use of these occasionally would be harmless, only perhaps it may harm during its intoxication for a short time.

43. Moderate consumers are inoffensive to their neighbours.

44. The immediate effect of moderate use of any of these drugs on the habitual consumers is of a pleasing sort. It produces intoxication. It does not allay hunger. It creates appetite in some degree. The effects of these drugs last for about four hours on habituals and for twelve hours on beginners. Yes, there are after-effects.

45 and 46. *Vide* Medical Officer's report attached.*

47. The habitual moderate use of any of these drugs does not appear to be a hereditary habit, but in some way it affects the children of the moderate consumers.

48. The excessive habitual use of any of these drugs does not appear to be a hereditary habit, but it affects the children.

49 and 50. *Vide* Medical Officer's report attached.*

51. The bad characters only are used to these drugs. The proportion is not based on the population. The bad characters generally commit petty offences with the intention of defraying the costs of these drugs. The consumers of liquor require a large amount to spend for it, while the consumers of these drugs can manage with a small amount.

52. This has been solved in answer No. 51 above.

53. The excessive indulgence does not, it appears, excite the consumer to unpremeditated crime, violent or otherwise, unless the consumer has not been out of his senses.

54. These drugs are not used by criminals in order to fortify themselves to commit a premeditated act of violence or other crime.

55. The criminals induce their victims to partake of any of these drugs, and so stupefy them in order to further their designs. Complete stupefaction can be induced by admixture.

56 and 57. *Vide* Medical Officer's report attached.*

58. The present practice of control is rather satisfactory. For the present the Revenue Officers have been entrusted with powers in these matters; but if a separate officer be appointed for these matters, the control, etc., will be more satisfactorily exercised than at present.

59. The improvement can be effected by opening a separate department, and also by giving powers to the patels, etc.

60. Information on this head cannot be supplied, as there is no ganja cultivation in this taluk.

61. Charas is not known in this taluk.

62. See answer No. 60 above.

63. No improvements are necessary in the present system of wholesale or retail vend of these drugs.

* Not received by the Commission.

64. I have no objections to the existing regulations governing the import of these drugs. As there is no cultivation of ganja in this taluk, there is no exportation of the same.

65 to 67. I am unable to solve these satisfactorily.

68 No houses or shops have been licensed for the sale of these drugs or their preparations where these may be consumed on the premises.

69. The wishes of the people are not consulted for the opening of shops. The shops are opened from information obtained from the contractors as to the sale of these drugs; but the public convenience is always looked to in opening them.

70. The ganja is always imported from other provinces on a pass after the duty has been paid. There is no general use of untaxed drugs in this taluk.

---

14. *Evidence of* LAXMAN GOPAL DESHPANDE, *Brahmin, Naib Tahsildar, Mangrul Taluk, District Basim.*

1. I have had opportunities of obtaining information regarding the matters connected with hemp drugs, in regard to which my answers are framed from the persons addicted to the hemp drugs and the cultivators of the plant, whenever I came in contact with them.

2. The said definitions can be accepted, except the definition of ganja. The name of bhang is applied to the dry leaves of cultivated female hemp plants. There are only two varieties known of ganja—flat ganja and chur ganja. Ganja is locally known by ganja. Charas is locally known by charas. Bhang is locally known by bhang, siddhi, and gadada.

6. The growth of the wild hemp is ordinarily scattered.

7. There is a cultivation of the hemp plant in my province—

(*a*) for production of ganja,

(*c*) for use of bhang,

in Khamgaon and Pimpri in the Khamgaon taluk and Sutal in the Malkapur taluk to the slight extent.

8. There has not recently been any considerable increase or decrease in the area under such cultivation.

9. The cultivators are to procure seeds of the hemp plant outside of the province. The soil is to be ploughed down. It requires sufficient manure, particularly that of cowdung. The process of the kharif crop is generally followed in the hemp cultivation. The seeds are sown rather late, that is, in the months of July and August (in the Nakshatras of Punarwasu and Pusha). The hemp crop requires, besides the rain, well water, from the Hasta Nakshatra, three times a day. The crop is ready for being reaped in the months of November and December (in the month of Margashirsha). To have the crop more stimulative in its quality the cultivators open the lower part of the hemp plant, put in the part open needful quantity of opium, and then bind it over very tight.

10. The persons who cultivate hemp for its narcotic properties don't form a special class. They are of the same classes as other agricultural cultivators.

11. The plants cultivated for the production of ganja are never raised from the seed of the wild hemp.

12. I have no reason to suppose that the (so-called) wild hemp is anywhere specially cultivated for the production of ganja.

13. The cultivation of the hemp plant for ganja is restricted throughout the whole province. The elevated *pandhari* soil close to villages is necessary for the cultivation of hemp for producing ganja. The soil from which opium crops were used to be taken suited best for ganja crop without any manure. There is no part of my province where its cultivation would be impossible.

14. The following products are prepared in my province:—

(*a*) Ganja;

(*c*) Bhang.

For the answer of the latter part of the question, *vide* answer to question No. 9, chapter 2.

15. As it is not known that ganja and bhang are produced from the wild plant, so the distinction between the methods of preparation from the cultivated and the wild plant cannot be made. The following is the method of preparing the above products: When the hemp crop is ready to be reaped, cultivators cut off buds with leaves. They heap the buds with leaves on the surface of the earth and tread them under foot. The leaves form bhang, and buds ganja. Buds are put in the water and after a few minutes they are taken out and cleared of the dirt they contain. Thus they are prepared for smoking. The leaves are reduced to powder, and the powder thus made is used for eating and drinking.

16. Bhang is not generally prepared by the people in their houses. It can be prepared from the hemp plant wherever grown. Ganja cannot be prepared from the wild plant wherever grown.

17. The preparations of ganja and bhang are made by the cultivators of the hemp.

18. The drugs (ganja and bhang) do deteriorate by keeping. They quite lose their effects in time. They do not keep good more than two years with ordinary care. I don't know the causes of deterioration. To prevent deterioration they should not be affected from moisture and rats.

19 Ganja is used for smoking. Chur ganja is used also for eating and drinking instead of bhang, when the latter is not available.

20. The classes of the people that smoke ganja are mainly formed of travellers, bairagis, fakirs, gosawis, Rajputs, Brahmins, Kunbis, Marwaris, throughout the whole province. Their number on an average probably will come to 20 per thousand.

21. The flat ganja is preferred for smoking.

23. Bhang is sometimes used for smoking when ganja is not available to the hands of the poorer classes of the people.

24. Throughout the whole province Brahmins, Rajputs, Marwaris, bairagis, gosawis, etc., do eat or drink bhang. The number of consumers will come to 10 per thousand.

25. The use of ganja and bhang is on the increase. The reason is that the number of the shops of these drugs is much increased on the recommendation of contractors wherever needed.

This fact evidently shows that the consumption is on the increase.

26. The following are the proportions of the consumers :—

	Ganja.	Bhang.	
(*a*) Habitual moderate consumers .	5	3	per thousand.
(*b*) Habitual excessive consumers .	12	5	
(*c*) Occasional moderate consumers .	1	1	
(*d*) Occasional excessive consumers .	2	1	
	20	10	

27. Each of these is mainly taken from classes of the people forming fakirs, bairagis, gosawis, Rajputs. The practice is mainly contracted owing to the bad association. Generally these classes of the people lead an idle life.

28. The following is the average allowance and cost of each of these drugs per diem to—

	Allowance.	Cost.
	Tolas.	Annas.
(*a*) Habitual moderate consumers—		
Ganja	2½	2
Bhang	2	1
(*b*) Habitual excessive consumers—		
Ganja	5	4
Bhang	5	2½

29. Tobacco is ordinarily, and dhatura exceptionally, mixed with ganja. Pepper and bhang massala are ordinarily mixed with bhang. The object of these admixtures is to moderate the power of intoxication and to have a good taste. Bhang massala consists of rose flower, sugarcandy, poppy seeds, sweet fennel, almonds, nutmegs, cardamoms.

30. To a great extent the consumption of each of these drugs is practised generally in solitude and occasionally in company. It is mainly confined to the male sex attaining minority. It is not usual for children to consume any of these drugs (bhang and ganja).

31. The habit of consuming bhang and ganja is easily formed. It is not difficult to break off. There is a tendency in the case of any of these drugs for the moderate habit to develop into the excessive.

32. As for ganja smoking, there is no religious or social custom prevalent in the province. There is a religious custom among the Hindus of drinking bhang on the days on which Maha Shivaratra and Chaitra Akadasi fall. The Hindus observe fasting on the said days. The persons given to bhang drinking drink and induce others to drink in honour of Mahadeo. The use of the drug is not regarded as essential. It is temperate generally to the occasional consumers and excessive to the confirmed consumers.

33. The consumption of bhang is generally regarded as baneful vice, and more so the use of ganja. There is not any public opinion in regard to the practice. The reason why the use of any form of the narcotic is generally in disrepute can be attributed to the dangerous and undesirable consequences that follow from it (use). There is no custom of worshipping the hemp plant on any occasion by certain sects of the people.

35. It would be feasible to prohibit the use of ganja and bhang. The drug would not be consumed illicitly. No doubt the prohibition would occasion serious discontent among the consumers. Such discontent would not amount to a political danger, as the number of consumers is very small in comparison of the population of the whole province. The prohibition will be followed by recourse, not to (*a*) alcoholic stimulant or other drugs, but to too much eating and smoking of tobacco.

37. The smoking of charas is not practised in my province, so the difference in effects cannot be mentioned.

38. The flat ganja brings on intoxication earlier than the chur ganja—to consumers. The use of flat ganja is more pernicious to the health than that of the chur ganja.

39. The smoking of any preparation of the hemp plant is not in any way less injurious, but, on the contrary, more injurious than drinking or eating the same or any other preparation.

40. The use of ganja is prescribed on account of its medicinal qualities by Native Doctors. Its use is also made in the treatment of cattle disease.

41. The moderate use of ganja or bhang is temporarily beneficial in its effects—

(*a*) as a food accessory or digestive;

(*b*) to give staying-power under severe exertion or exposure, or to alleviate fatigue;

(*c*) as a febrifuge or preventive of disease in malarious and unhealthy tracts.

Generally travellers, such as fakirs, bairagis, gosawis, and labourers, use the drug for the above purposes. It is both the moderate habitual use and moderate occasional use of the drug which I refer to. The effects of the moderate occasional use of the drug are more beneficial than those of the moderate habitual use.

43. Moderate consumers are inoffensive to their neighbours.

44. The immediate effect of the moderate use of any of the drugs (bhang and ganja) on the habitual consumers is to inflame the eyes to the slight extent in the case of ganja, and to create inconceivable action in the brains in the case of bhang. The consumers think it to be refreshing, though it is not actually so. It produces intoxication to the slight extent. It does not allay hunger. Bhang creates appetite. The effect of ganja lasts for two hours or so, while that of bhang throughout the whole day. There are after-effects. The want of subsequent gratification does produce longing or uneasiness.

45. The habitual use of any of these drugs (ganja and bhang) does produce noxious effects, physical, mental or moral.

It (ganja) impairs the constitution. It (ganja) and bhang in the long run injure the digestion or cause loss of appetite. Ganja causes asthma when the consumer loses health and grows old. It induces laziness. It does deaden the intellect.

46. As to the consequences from the habitual excessive use of any of these, they ensue earlier.

47. The habitual moderate use of ganja does affect the children of the moderate consumer.

48. The habitual excessive use of ganja does affect the children of the excessive consumer very badly.

49. The moderate use of ganja and bhang is practised as an aphrodisiac. They are used by prostitutes. The use for this purpose is more injurious than the use as narcotic, as they give much stimulus to the nervous system. The use of hemp tends to produce impotence in the long run.

50. By the excessive use the effects are brought about earlier.

54. The drugs (ganja and bhang) are not used

by criminals to fortify themselves to commit a premeditated act of violence or other crime.

57. Ganja is sometimes eaten or drunk when bhang is available.

58. I am strongly under the impression that when the Government introduced the system of excise administration the main object it had in view was to check the consumption of the drugs from the hemp plant as far as possible. But on consideration of gradually increasing number of consumers I cannot but say that the object aimed at is not likely to be accomplished by the working of the present system. The system is capable of improvement.

59. To improve the system such measures may be taken as would without fail check gradually the use of the drugs or prohibit at once the use except on medical purposes. Under the present system any number of maunds of the drug can be imported to meet the demands of the public, and besides that any number of acres can be brought under the cultivation of the hemp plant for the same object. In case the use is gradually and certainly to be checked, the number of shops is to be reduced every year and the restrictions in regard to the fixing of such a number of acres to be brought under cultivation of the hemp plant and of such a number of maunds of the drugs to be imported as would suit our purpose under the circumstances, are indispensably to be brought into force. In case the Government thinks the use is to be prohibited except on medical purposes, it is well and good.

62. *Vide* my answer to question 59.

63. I have no objection to the present system of a wholesale or retail vend of ganja and bhang or preparations of them.

64. *Vide* my answer to question 59.

69. The wishes of the people are not consulted or considered in any way before a shop is opened in any locality. The number of shops is increased or decreased on consultation of contractors, *i.e.*, indirectly the wishes of consumers are consulted and considered. Local public opinion is to be taken into account before opening any shop.

15. *Evidence of* Colonel C. T. Lane, *Inspector General of Police, Amraoti.*

51. I do not believe that any *large proportion* of criminals are moderate consumers of hemp drugs. Nor do I think that moderate use has any connection with crime.

52 and 53. Answering questions 52 and 53 together, I would say that I believe the excessive use of these drugs does tend to excite a violent disposition, which may culminate in temporary homicidal mania.

A prisoner in the Akola Jail, who before conviction for murder had been in the habit of taking bhang, was found after conviction to become violent—

1st—when he surreptitiously got hold of this drug;

2nd—when, after thus indulging in it, the fact was discovered and he was deprived of it. He assaulted the Superintendent when under this excitement.

54. I have no personal knowledge that this is the case.

55. I have never in my experience heard of a case where bhang, charas or ganja was used to stupefy for the purpose of robbery; and I cannot say whether complete stupefaction can be produced by any of them.

16. *Evidence of* Mr. H. A. Heath, *District Superintendent of Police, Wun.*

51. Certainly not. None whatever.

52. Persons who make and drink ganja, bhang and madak *to excess* are, in my opinion, incapable of doing any mischief. They are most miserable specimens of humanity, those I have seen.

53. No; not to those accustomed to the use of these drugs. No; I have not personally seen any case of the sort.

54. I think not. Criminals committing violent crime, dacoities and robberies generally fortify themselves with country liquor. This stuff gives them Dutch courage, while the drugs soothe them only.

55. Yes; only occasionally such cases are heard of; but those that come before me personally, the drug used was always dhatura.

Yes; certainly complete stupefaction can be induced.

17. *Evidence of* Mr. N. R. Cumberlege, *District Superintendent of Police, Amraoti.*

51. I should say a fair proportion would be found. And I would instance Mænas, Bhudducks, and others of the Bowri class, inclusive of Sansis and Hurburahs, many Garorees, most Afghans and Purbeahs, coming to Berar as moderate habitual consumers, with all the class of Muhammadan fakir coiners, and very many of the Deccan Musalmans also, the want of it being felt when not obtainable by all such consumers. And I should consider that even a moderate use of these drugs would have a demoralizing effect, would conduce to an immoral predisposition, pervert the working of the brain into unexpected channels, and render also a callous feeling of indifference to consequences arising through any personal action.

52. I consider it has been shown unmistakably that these drugs inflame the passions and operate detrimentally on the brains; that they do not of necessity cause the same effect in any two persons; and this may be attributable in part to the constitutional condition of the person affected, as also in part to the dose then taken, which would also necessitate a consideration of the quantity taken within the few hours previous, or the habitual usual dose taken once a day or oftener.

53. Excessive indulgence does incite to un-

premeditated crime, violent and otherwise. It causes irritation of the brain and produces an improper condition, wherein conceptions undoubtedly arise which lead to hitherto unpremeditated action. Known cowards have been known under such influence to commit rash, even bold, acts they had never contemplated, much less been guilty of, without its inflammatory aid, and many a burglary and road crime had never occurred but for its influence. I have met no such case personally; but the annals of criminal history in India show it does lead to temporary homicidal frenzy: witness the repeated instances of running amuck, which might one and all be authenticated.

54. Yes; I have met many instances wherein these drugs have been used to encourage to the commission of burglaries and road crime, especially the former. I should say the Afghans (Kurbulla Syeds, other Peshinis, Yusuff Zaies, Hussan Zaies, etc.), Mænas and the Bowri class generally (and it has many ramifications) do resort to these drugs whenever there is a likelihood of resistance, when they will allow nothing to deter them either in the commission of the crime or to enable them to retreat. Even the commission of murder is looked on as nothing when under this influence.

55. Not to my own knowledge. I have read that such has been done, and without admixture it might be administered in a *chillum*; but I have no personal knowledge. But rather that, in order to stupefy a victim, criminals use the dhatura or the root of the jowari invariably. These being so much the safer also would be preferable; and the effect of both dhatura and the jowari root is identical in its proportionate dose. I could point to many instances of the latter; personally to none of the former.

---

18. *Evidence of* Surgeon-Major C. L. Swaine, *Officiating Sanitary Commissioner, and Inspector-General of Dispensaries.*

1. From seventeen years' service in India in charge of Native troops, civil hospitals, dispensaries and jails, and as Officiating Sanitary Commissioner of this province.

2. These definitions may be accepted for this province, but charas is not known here, nor is ever used. The names used for the products in this paper are those in use locally.

19. Charas is not used in this province, but ganja is used mixed with tobacco for smoking.

23. Bhang is not used for smoking.

28. (*a*) One and a half drachm of ganja, the cost of which is three pie, will last a moderate consumer about four days.

One ounce of bhang, the cost of which is three pie, will last a moderate consumer about four days.

(*b*) Four ounces of ganja, the cost of which is two annas, will be consumed by an excessive smoker in one day.

Four ounces of bhang, the cost of which is six pie, will be used by an excessive consumer in one day.

29. Ganja mixed with tobacco is used by all smokers, irrespective of caste, trade or nationality. No other ingredients are mixed with ganja.

Several ingredients are mixed with bhang before it is drunk, such as coriander seed, almonds, rose flowers, sugar, milk, etc.

Habitual excessive ganja smokers sometimes mix dhatura seed in the smoking mixture. Opium, nux-vomica, cantharides, or betel-nut are never used either with bhang or ganja in this province.

Bhang massala is known, and consists of bhang, black pepper, cucumber seed, almond, rose flower, sugar, milk, etc.

30. Ganja is not smoked in solitude, but in company. Bhang is also used in company and not in solitude. Bhang and ganja are almost entirely used by men, except in few cases by prostitutes, but never used by children.

31. The habit of ganja smoking is easily contracted and never abandoned, except under compulsion. It is the same with bhang. There is no tendency as a rule for a moderate to become an excessive consumer of ganja or bhang.

32. It is essential that when fakirs, sadhus, and other religious mendicants are assembled for a feast, that before sitting down to their food ganja or bhang should be used. There are no other customs at which it is essential that these drugs should be used that I am aware of.

36. I do not think that alcohol has been in any way substituted for these drugs.

37. I have no experience of charas smoking. By smoking ganja, intoxication is at once produced, and lasts only for a short time, while in the case of bhang it is more gradual and of longer duration.

39. From my own experience among regimental sepoys the smoking of ganja is far more injurious than drinking or eating bhang. The confirmed ganja smoker is always smoking, and will light his *chillum* whenever he gets a chance of so doing, and the cases of sepoys that I will mention hereafter were all excessive ganja smokers.

40. In few cases these drugs are used by native doctors in treatment of disease, but in the treatment of cattle disease only bhang is used.

41. It is said—

(*a*) both ganja and bhang are used to give appetite and promote digestion;

(*b*) ganja and bhang, but more especially ganja, are used to give staying-powers and alleviate fatigue;

(*c*) in the Melghat forest and malarial district ganja is much used as a preventative against malarial fevers;

(*d*) I do not think that ganja or bhang is in any other way beneficial to those using them, as it is stated to be above.

42. From my own experience the moderate use of these drugs I consider harmless, but cannot say that it is beneficial in any way.

44. At first after smoking ganja the smoker feels happy and light-hearted, which after a short interval is followed by intoxication. It does not allay hunger, but aggravates it. It creates an appetite. The effect of ganja smoking lasts about ten to fifteen minutes. After-effects are great languor and depression. There is no longing or uneasiness if the appetite for smoking ganja or drinking bhang is not gratified.

45. I do not think that the habitual moderate use of these drugs produces any noxious effects,

physical, mental or moral. It does not impair the constitution, injure digestion or cause loss of appetite. It does not cause dysentery, diarrhœa, bronchitis or asthma; nor does it impair the moral sense or produce laziness of habit. I have known several moderate users of these drugs, and they did not appear to me to be any the worse for it.

Taken in excess it deadens the intellect and produces insanity. In two cases of insane sepoys in my late regiment who had to be sent to lunatic asylum, one to Nagpur, and the other to Rangoon asylums, the insanity in both cases was entirely due to excessive use of ganja. In neither of the cases was there any predisposing cause of insanity. Both were violent and inclined to be homicidal, and neither of them had suffered previously from mental anxiety or brain disease. Five other sepoys were discharged from the regiment as mentally deficient, whose intellects were deadened by the excessive use of ganja and bhang.

46. A habitual excessive user of these drugs, in my opinion, is unfitted morally, physically and mentally for any employment. He is a curse to himself, and a burden to all those connected with him.

47. None.

48. The excessive use of these drugs is not in any way inherited. The offsprings of an excessive user will not necessarily follow in the footsteps of their parent.

49. Sometimes these drugs are used as an aphrodisiac, also by prostitutes. They are not more injurious, when used for this propose, than as an ordinary narcotic. The use of hemp does not produce impotency.

50. All injurious, but smoking ganja more so than bhang, and is liable to produce insanity.

56. The effect of hemp modified by the admixture of other ingredients is—

(*a*) taken in moderation, harmless;

(*b*) taken in excess, injurious. Dhatura, nux-vomica, cantharides, opium or betel-nut never mixed.

57. Ganja is never eaten or drunk in this province, only smoked. Such a thing as charas is not known down here, and never used in any way whatever.

In conclusion, moderate use in my opinion is neither beneficial nor injurious, but the excessive use is most harmful in every way, and I certainly think that something ought to be done to curtail its use, and to make it more of a luxury than it is.

---

19. *Evidence of* Surgeon-Major R. B. Roe, *Civil Surgeon, Amraoti.*

1. Enquiries amongst convicts in jail, and ganja smokers outside.

2. Indian hemp is not cultivated in Berar, but the definitions and names given apply to the imported drug. The names given are known and used here.

19. Charas is smoked only. Ganja, though used chiefly in smoking, is occasionally chewed and eaten by excessive consumers.

23. No; never.

28. (*a*) Ganja up to 5 tolas, costing . 2½ annas.
Charas „ „ 3 masas, „ . 2 „
Bhang „ „ 5 tolas, „ . 1 „
(*b*) Ganja up to 15 tolas, „ 7 or 8 „
Charas „ „ ½ tola, „ . 4 „
Bhang „ „ 10 tolas, „ . 2 „

29. (*a*) Tobacco or tobacco mixed with jagri, known as *gudakoo*.

Bhang is pounded and mixed with sugar and water or milk.

(*b*) Dhatura, nux-vomica, betel-nut are used, as also arsenic and aconite, the object of the admixtures being to increase strength of the preparation.

Bhang massala is used here, and consists of cucumber seeds, almonds, black pepper, rosebuds, aniseed, coriander, poppy seeds, sugar, and melon seeds: these ingredients are pounded and mixed (usually) with milk and water.

30. Consumption is mostly practised in company; it is mainly confined to the male sex; but women of low character as well as Sunthins or Hindu nuns do use the drug. It is not used by children under 12 years of age.

31. The habit is acquired easily, and is very difficult to break off. There is a tendency for the moderate to develop into the excessive habit.

32. Apparently no connection in this respect.

36. No.

37. Charas is stronger than ganja; and the intoxicating effect of the former is more quickly developed and lasts longer.

Bhang is much milder than either of the above, and its effects are slowly developed.

39. Smoking is more injurious than the drinking of bhang. But the eating of ganja is more injurious than either.

40. I cannot discover the use of the drug by native doctors. But it is said to be used mixed with turmeric and butter in the treatment of cattle for throat affections.

41. (*a*) Ganja and bhang increase appetite and assist digestion.

(*b*) Ganja gives staying-power. Bhang is given to camels and bullocks occasionally when forced marches are required of them.

(*c*) It (ganja) is also used as a febrifuge with good results.

Used in small quantities as above, the drug may be beneficial.

42. Bhang, if used in moderation, is, I believe, harmless; but the moderate habit tends to develop into the excessive.

44. The drug is refreshing. Smoking produces intoxication almost at once. It increases appetite; does not allay hunger. The effect of smoking lasts about an hour. The want of the drug produces much longing and uneasiness.

45. Not as a rule, unless long continued in, when more or less emaciation occurs, with loss of mental power. Increases appetite and assists digestion. Is said to cause bronchitis and asthma, but not dysentery. It induces laziness, but not immorality. It is generally believed to produce insanity.

46. Increased laziness results, with loss of memory, more emaciation, and a general break-up of the system.

47. I believe not.

48. Not hereditary.

49 and 50. No, and is not used in this way by prostitutes. Impotence sometimes results in the case of excessive smoking.

56. The admixture of other substances is used generally to increase the effect of the drug; opium is not used with hemp; I have no knowledge of the action of the individual ingredients when mixed with hemp.

57. Charas is smoked only. Ganja, when eaten, is said to be more injurious than when smoked. The result, however, is not so rapidly obtained.

20. *Evidence of* Surgeon-Captain E. W. Reilly, *Civil Surgeon and Superintendent, Central Jail, Akola.*

1. Very little. Only in the jail, when I come into contact with men addicted to the use of these drugs.

2. In Berar, I am told, only ganja and bhang are to be had. Ganja is made from the flower of the plant. Bhang is prepared from the leaves of the plant.

19. Ganja is only used for smoking. Used thus all over Hindustan. Charas I know nothing about. The prisoners know of the compound, and say it is highly intoxicant.

23. Bhang is sometimes smoked when ganja is not procurable. Generally it is prepared to be used as a drink.

28. *Ganja*—

(*a*) Twice a day.

(*b*) Frequently during day.

Bhang.—

(*a*) Once a day occasionally.

(*b*) Never more than once a day, and then in early evening.

29. Ganja is used for smoking mixed with tobacco.

Bhang massala is prepared by mixing bhang with black pepper, almonds, ginger, sugar, rose leaves, cucumber seed. When it can be afforded, this preparation is drunk with milk.

So far as I can elicit information, dhatura, opium, nux-vomica and cantharides are not mixed with these drugs.

30. Ganja is generally smoked in company. Its use is confined to the male sex. Children do not consume any of these drugs. Bhang is also usually drunk in company. Both sexes are accustomed to its use. Children do not consume it.

31 and 32. No information to be had.

40. At times. Yes; it is given to cattle. When a man wishes to sell his cattle (bullocks) at a bazar, he generally gives them a dose of bhang.

41. (*a*), (*b*), (*c*) Yes.

(*d*) As an intoxicant.

44. Ganja produces intoxication, and it is used for this purpose alone. Bhang, on the other hand, is refreshing and is an appetizer. The effects last from two to three hours.

45. These questions my informants are unable to answer. As I have but little experience of these drugs, their uses and effects, I am unable to offer any opinion.

49. No; I am told that the use of ganja and bhang tends to an opposite condition of things.

21. *Evidence of* Dr. O. W. Jones, *Civil Surgeon, Basim.*

1. From personal experience of the habits of the people who are hemp consumers, and to a long residence in different parts of India.

2. These definitions are applicable for this province except that charas is not known in this district.

19. In this district ganja is used for smoking; charas is not known.

23. Bhang is never used for smoking.

28. In this district ganja is the only part of the plant that is used for smoking. The average allowance and cost per diem being for (*a*) one-fourth of an anna or one tola for two days; (*b*) varies from one to two annas.

29. With ganja tobacco is also mixed and put into the *chillum* and so used for smoking. The fakirs often mix dhatura leaves and sometimes a small quantitity of crude arsenic. The object of mixing tobacco is to give a longer smoke. The dhatura is used to increase the narcotic action of the ganja, and arsenic to produce increased sexual desire, to sustain bodily fatigues, and to ward off malaria. Bhang massala is made up of bhang, black pepper, poppy seeds, sugar or sugarcandy, dry ginger, almonds, and chirungee seeds. Bhang massala is not sold, but is prepared by consumers, chiefly Brahmins, Marwaris, Rajputs, Ratoras and Shikhs. This bhang massala is mixed with milk and used as a drink, the better classes being the chief consumers.

30. Ganja is both smoked in solitude and in company. Bhang is not used for smoking, but is converted into a drink by pulverisation of its leaves and its maceration in cold spring water. It is usually drunk in company. Ganja and bhang are chiefly used by the male sex and by adults. No, it is not usual for children to consume any of these drugs. But there is a confection called majum, which is made up of ganja, sugar, ghee, and other condiments. This confection is sometimes given to children; but chiefly to girls about attaining maturity with the object of producing intoxication before using such girls for immoral purposes. Majum is largely consumed by all classes who take part in the Muharram festival.

31. The habit of consuming any of these drugs is easily formed, for the ganja *chillum* is always made welcome to anybody who joins the party of ganja smokers. It is not difficult to break off the habit of smoking ganja, as it is not often procurable in small villages. As a rule, no; but in some instances moderate smokers gradually become excessive.

32. As to majum, see No. 30. It is a social

custom among the gosains to convert every disciple into a ganja smoker, being a formal initiation into the religious sect.

36. As ganja smoking has a tendency to undermine the health, young men of the lower classes are carefully eschewing the habit of smoking ganja. The increased consumption of arrack and toddy points to ganja smoking being gradually superseded. Men who have been in the habit of smoking ganja for the last ten years give it as their experience that they do not see any steady increase in their number of ganja smokers.

37. Charas is not procurable in this district, and hence not used by the people. It is not known if there is any difference in ganja and charas smoking. There is no difference in the narcotic action produced by bhang from ganja smoking.

39. Ganja smoking has a greater tendency to affect the health than the using of bhang or bhang massala as a drink. Ganja smoking is taken into the lungs and speedily produces its narcotic action. Bhang and bhang massala being taken as a drink, and that often with milk, the dilution weakens the narcotic action, and hence has a less tendency to affect the constitution. Excessive ganja smokers are often the victims of insanity.

40. No. Not known. No information can be obtained on the subject.

41. The moderate use of ganja and bhang are beneficial in their effects, as detailed in (*a*) to (*d*).

42. The moderate use is both beneficial and harmless. There are men who have been in the habit of smoking ganja from adult to old age, and have not bodily suffered in any way, but give it as their experience that moderate smoking has often removed fatigues and stayed the pangs of hunger.

44. The moderate use of the drug, even on the habitual consumer, is refreshing and intoxicating. It allays the pangs of hunger and creates appetite. The effect of intoxication lasts for an hour. If used in moderation there are no after-effects. The want of subsequent gratification does not produce a longing or uneasiness.

45. The habitual moderate use of ganja or bhang is in no way detrimental to the consumers; on the contrary, it is beneficial. I give this as my experience, and as the experience of men who are in the habit of using ganja in moderation for periods varying from ten to twelve years.

46. The excessive habitual use of ganja is highly detrimental to the consumer. Physically the habitual is rendered weak and emaciated. His intellect also becomes weak and clouded, while his moral feelings are blunted. The constitution of the habitual is highly impaired. He is weak and emaciated, with a tendency to develop tubercle in his lungs. (*c*) Yes. (*d*) Causes bronchitis and asthma. (*e*) Yes; induces laziness. (*f*) No. Produces temporary insanity, and is the exciting cause of such temporary insanity. Type: like a case of acute mania. Temporary; yes. The chief symptoms are ungovernable fury, great restlessness, want of sleep, dilated pupils, refusal of all food, talks ramblingly and incoherently; a busy delirium being present. There is also a sense of dread and suspicion. Besmears his excreta about his cell walls. (*g*) Not known.

47 and 48. No.

49. Ganja does not possess any aphrodisiac action on the consumer; but, when mixed with a small quantity of crude arsenic, it does produce an increased desire for sexual action. (*b*) No. (*c*) No. (*d*) No.

50. Ganja to the excessive habitual consumer acts not as an aphrodisiac, but has a marked tendency to produce impotency.

56. Hemp in moderation used with tobacco is not injurious. In excess, mixed with dhatura or opium, it is highly detrimental to the consumer.

57. Ganja and charas are never eaten or drunk.

In conclusion, the moderate use of ganja, bhang or bhang massala is, in my opinion, highly beneficial to those who use the drug. It wards off fatigue, allays hunger, and produces a certain amount of happiness. Those using bhang massala benefit by it, as the preparation is taken with milk, the nutritive action of the milk being beneficial to the consumer. The drug being cheap and speedy in its action as a narcotic, does not drain the purse of the smoker, and hence does not produce any demoralisation so far as the consumer or his family are concerned. A moderate smoker is never known to be riotous or uncontrollable. He is happy in his own way, and is a peaceful citizen. I should certainly prefer to see the natives of India take their moderate dose of hemp in the *chillum* twice a day than give up the practice to become consumers of arrack or other ardent spirits.

---

22. *Evidence of* Dr. J. Morrison, *Civil Surgeon, Yeotmal.*

1. Very little.

2. Yes. Bhang, ganja, and charas; latter not sold here.

19. No charas sold or used. Ganja used for smoking as well as being made into bhang for drinking. Bhang is used only by a few people, *e.g.*, Pardesis and Marwaris, as a cooling drink in summer.

23. Not so used.

28. Half a tola daily of ganja for habitual moderate consumers, cost 0-0-3; 1½ tolas for excessive consumers, cost 0-0-9. Charas not used. Bhang used moderately in summer by a few only. Can't say cost.

29. Tobacco is ordinarily mixed with ganja for smoking. No bhang massala sold here.

30. No experience. Mainly confined to the male sex. Not usual for children to consume any.

31. Habit easily formed; difficult (when unrestrained) to break off. Yes, the tendency is to develop into the excessive.

32. Am not aware of any such custom.

36. I have no reason for so thinking.

37. Charas not sold here. Cases of acute mania have been attributed to ganja and charas smoking. Have not heard of bhang causing such disease.

39. Smoking ganja and charas is said to be more injurious. I, however, have no experience in this matter. Two cases of temporary mania have come under my notice, said to have been due to smoking ganja.

40. Charas and ganja are prescribed by native doctors.

41. I do not consider that the use of any of these may be of use either as a food accessory, to give staying-power or as a febrifuge.

42. The human economy, I don't think, requires any of these drugs. *Cannabis* is prescribed in some diseases, *e.g.*, neuralgia and spasmodic asthma, etc.

44. Pleasing ideas and hallucinations. Has a temporary refreshing effect. Bhang is said to create appetite. Yes, the want of subsequent gratification produces uneasiness and longing.

45. (*a*) Yes, eventually.

(*b*) and (*c*) Eventually it does.

(*d*) Ganja smoking has induced asthma.

(*e*) It does eventually.

(*f*) It deadens the intellect eventually. It has produced insanity. In two cases known to me it appeared the exciting cause. These two cases were in men who laboured under the opinion that their wives were carrying on criminal intimacy with other men. In the above cases I consider the connection conclusive. I have no evidence as to whether insanity may tend to the use of hemp drugs.

46. I have no experience, but think that the excessive use of any of these drugs would eventually tend to insanity.

47. I can't say. Does not appear to act injuriously on the offspring.

48. Have no experience.

49. Yes; they are said to be so used. Don't know if prostitutes use them. I have not known any case of impotence due to their use.

50. I have no experience.

56. Don't know. I have no information of the admixture of any of the drugs mentioned.

57. No experience.

23. *Evidence of* Dr. W. J. Montgomery, *Civil Surgeon, Buldana.*

1. My information is based on local enquiries made by me from persons connected with hemp drugs and on personal general experience.

2. I am told that hemp is not cultivated in this district, and even when allowed the cultivation was very limited. Bhang and ganja were the only products used. Charas was never used, because it was never taken from the plant. These definitions may be accepted as regards this province. Bhang and ganja are commonly known.

19. Charas, as stated in paragraph 2, is not known in this province. Ganja is used only for smoking.

23. I have not seen or heard of bhang being used for smoking.

30. The ganja smoker does not, as a rule, admit that he is addicted to the habit. It is often smoked in company, generally in the evenings. In fact, ganja smokers form a separate clan and are always thick friends. It is mainly confined to the male sex and to middle and old age. It is not usual for children to consume any of these drugs.

31. Yes; the habit is easily formed and is difficult to break off. There is a tendency in a few cases only to develop into excess. In such cases the individual eats but little, and all his earnings are spent on his acquired pernicious habit.

32. It has been indulged to my knowledge by Purdesis during the Holi festival. The bhang is mixed with milk and taken. The use of the drug in this way on such occasions is not considered essential. It is chiefly partaken of owing to the sense of merriment which it produces from its stimulant properties.

In some cases the person who indulges in the habit for the first time swears he will never touch it again because it has bad effects.

36. There is no reason to think that alcohol is being substituted for any of these drugs.

37. I have had no exprience as regards charas. Ganja smoking and bhang drinking are very much the same in their effects.

39. The habitual use of these drugs has a tendency to weaken the constitution. Habitual ganja smokers are generally emaciated and thin weakly men; and I have invariably found such men suffering from an incurable chronic cough. The cough is so characteristic that I have often been able to say that this is a ganja smoker, simply from this one objective symptom. The muscular tissues and fat dry up so to speak, while the veins become full and prominent. The lips become thin. It is known to have caused temporary insanity.

41. It is supposed by natives to assist digestion and to be beneficial to the health. I have no doubt but it does assist digestion in habitual smokers.

42. Even the moderate use of hemp drugs is harmful. The mind becomes affected, and the person appears more or less silly.

44. The immediate effect is a sense of pleasure. It is refreshing. It produces intoxication when taken to excess. Perhaps it does allay hunger. The effects are temporary. There are no bad after-effects, except in the case of a tyro, who expresses himself as feeling very much relieved when the effects wear off. There is always a longing for the drug when once the habit is acquired.

45. Yes; even the habitual moderate use of these drugs affects the physique, mind and morals of the consumer. The physique becomes undermined, the mind weak, and there is a tendency to immorality. The man who takes to excess becomes literally half mad.

47. No.

49. It does not produce a desire for venery, and it is not used by prostitutes. I am of opinion it does produce impotency.

57. I attended the case of a recruit in a native regiment who indulged in drinking bhang for the first time. The effects were described as awful. There was great restlessness. Thirst and a sense of languor, great heat and pain in the head, with a feeling as if the top of the skull was flying off, eyes were blood-shot, and the man seemed to regret the state he had brought himself to.

24. *Evidence of* S. BAIJNATH, *Medical Officer, Mady Hospital, Badnera.*

1. From my boyhood I had frequent opportunities to live with persons addicted to the use of hemp drugs in one form or the other. My father had been doing the work of a contractor, and had a number of gang people (from 50 to 500) working under him; hence my experience.

My experience extends to the provinces of Oudh, Central India, Malwa, Punjab, Baluchistan, Berar, Southern Mahratta country, Guzerat, Carnatic, Kathiawar, and Sind.

Everywhere the following products of hemp drug are used:—

(1) Bhang, also called, vijaya—

(*a*) Bhuti, sabji, majum, a kind of sweetmeat prepared by adding juice of bhang.

(2) Ganja, ganjo, harri tamacco.

(3) Charas.

19. Ganja and charas are both used chiefly for smoking; but the former is often used for eating also. This practice is common amongst the low caste and poor people of Oudh, and Kolees and Thakadas of Guzerat, who, while engaged in their ordinary avocation, for want of time and necessary things for smoking, have recourse to chewing, which they call *fanki*. Usually, before smoking, ganja is prepared. At first it is saturated with water and rubbed well on the palm of one hand with the thumb of the other, seeds picked out, other impurities, including big leaves, being removed. It is at first pressed by the hands, and lastly between the folds of some linen to remove the moisture. When ready, it is put in a *chillum* (an earthen thing), covered with fire, each smoker taking a few pulls, till the whole is burnt up.

23. Rarely. I have seen some poor labourers smoking bhang, not good stuff, but the refuse, which is usually thrown away by well-to-do or middle class people who drink it. This practice I have seen at Ujjain in Malwa, Scindhia's territory. I believe only those persons who cannot afford to buy ganja, but who also cannot overcome the longing desire of the same, collect this refuse and use in place of ganja.

28. (*a*) One-fourth to half an ounce; ¼ to 1 anna.

(*b*) Half to 2 ounces or more; 1 to 4 annas and more.

29. (*a*) Tobacco is ordinarily used for the purpose of facilitating the burning of ganja, and to remove a little dryness of the throat and tongue caused by ganja if smoked alone.

(*b*) Dhatura and opium is mixed by habitual excessive smokers, whose sense by excessive and frequent use of the stuff becomes weakened and who are not satisfied by a little intoxication produced by the use of ganja only. Dhatura and opium adds to the intoxication of ganja. Nux-vomica and cantharides are mixed by those classes whose sexual power is weakened, and by those who take delight in retention of power of seminal discharge during coitus, or suffering from imbecility. Bhang massala consists of dried rose buds, nutmeg, aniseed, cocoanut, sugar, milk, pepper, almond, liquorice roots, cardamoms, and *teeli* or rapeseed. These things are very common, and I think require no description.

30. Drinking of bhang is practised in company as well as in solitude; smoking of ganja generally in company and occasionally in solitude; and the use of charas mostly in solitude and rarely in company of friends.

Generally it is smoked by the male sex, but often by females also (prostitutes and female sadhus). They mostly take to it in adult life, and very rarely it is given to chidren, excepting in cases of sickness, such as sore-eyes, when it is given to allay pain and excite appetite. Bhang is used for this purpose.

31. Not unless it is practised for some time, *viz.*, a month or two, without interruption. The longer the period of indulgence, the harder it is to break off. Yes; in all there is a tendency to develop into the excessive from a moderate commencement.

32. During the festivals of Holi and Maha Shivaratri one or the other form of hemp drug is always used: more by those who are in the habit of smoking or drinking, and in lesser quantity by those who use occasionally.

Holi is a Hindu holiday, during which people make use of obscene language, and do all that a man with ordinary sense will always be backward to do. To drive out this feeling of modesty, people have recourse to intoxication, and as all the preparations of hemp are noted to possess this property the drug is used. Likewise Maha Shivaratri is supposed to be the day of Shiva, and as this god excessively used this drug, so his followers, Smarthas indulge in the same.

Also during marriage ceremonies and other great festivals and ceremonies this drug is used by those who delight in being in an intoxicated state and eat more food.

36. Indians to a great extent believe in the state of intoxication. Alcoholic intoxication is supposed to be more harmful (perhaps on account of its ordour) than narcotics. Therefore *Sudras* take liquor and higher caste people (who are not allowed by their religion to drink liquor) take bhang. But as liquor is expensive in comparison to bhang, and bhang (if well prepared) more expensive than ganja, so lower caste people take ganja, which is the least expensive, easily enjoyed, readily obtained, and made ready for use. *Sudras* mostly use alcohol, bhang and ganja. High caste people generally use bhang, rarely ganja, and still more rarely liquor. Latterly, on account of English education and society, some of the high caste gentlemen who with impunity could take bhang have substituted it by alcoholic drinks. To prove this is rather hard and risky. However, if it is essentially necessary, an inspection of accounts of English wine shopkeepers will prove without a shadow of doubt that the community whose forefathers could use openly preparations of hemp now use liquor, which is an open secret.

37. Effects of hemp drugs:—

Bhang comes first. If taken with its massala it is less injurious. Often it acts beneficially in fatigue and sickness.

Charas comes second (because high caste people are not allowed to smoke) in degree, and first among smoking classes. It is less harmful than ganja, which comes last. Charas is less violent in its action, seldom excites cough and lung affections, whereas ganja invariably produces bad effects.

39. Smoking is more harmful than drinking. By smoking, the nervous system is first affected, then respiratory. In drinking its effect is moderated. Smoking makes a man violent, boisterous irritable, quarrelsome, and is apt to make a man sooner insane than drinking of bhang, which makes

a man calm, considerate. less apt to mischeif, and lazy.

40. By native vaidyas it is given on account of its narcotic effect in bronchitis, asthma, dyspepsia, loss of appetite, vomiting, insomnia, and colic. Externally for fomenting painful parts.

In cattle diseases it is given in colic, retention of urine, and when ruminating power is weakened.

41. (*a*) Yes; bhang particulary.

(*b*) and (*c*) Yes.

(*d*) Moderate use does good in commencing impotency.

42. Because it is next to impossible to stick to the moderate use, and as the same dose every day does not answer, requires the drug to be increased (without which its effect is *nil*); and as increased dose leads to a habit, and as the habit of any kind of intoxication is undesirable, so I consider the moderate use of this drug more harmful than harmless.

44. (*a*) It is refreshing. It acts upon the various organs, such as lower bowels, bladder, stomach, etc., and excites their function.

(*b*) Yes.

(*c*) Yes, a little; it depends upon the quantity used.

(*d*) It excites hunger at first, but allays afterwards, and often causes craving.

(*e*) Yes.

(*f*) From two to three hours, and often up to five.

(*g*) Heaviness about the head, aching of body, indigestion in novice, and general malaise.

(*h*) Yes; its absence produces longing, and often uneasiness.

45 and 46. The habitual moderate use of bhang, ganja and charas at first gives a great appetite, and any kind of food is eaten with relish and delight. Thus the physical state of body improves, the person gains weight and stands any kind of exertion. The muscles become more developed, and he finds general improvement of the whole system. This state of things remain for about a year or two. Afterwards the person finds that any large dose has no effect, and he longs for more intoxication, to obtain which he has recourse at first to increased doses; then addition of opium, dhatura, etc. Eventually the system becomes so deadened to the effects of these drugs, that ever so much moderate dose produces no desired effect, and gradually the whole system begins to suffer; at first the digestion is impaired; next the respiratory and nervous tracts become affected. Dysentery, bronchitis, rheumatism, loss of memory, epistaxis, softening of brain, etc., set in, and the person becomes so sick that he finds his life a burden, more because no medicines which cure ordinarily such ailments do him any good.

These drugs in the beginning excite unusually great sexual desire; but after the lapse of some time, either on account of excessive sexual intercourse or on account of paralysing effects of the drug, the undue sexual desire becomes a matter of anxiety on the part of the person, who finds himself much below the mark, and tries to regain it by increasing the dose and adding opium, dhatura, cantharides, etc., which for the time being gives some satisfaction, but ends in total impotency.

I have seen in the lunatic asylums at Poona and Ahmedabad (Guzerat) that about 75 per cent. of the lunatics were, before their coming into the asylum and before becoming a subject fit for that place, ganja and charas smokers, mostly the former. Ganja is the thing which excites insanity, because it acts directly on the nervine centre, and a man who is otherwise sober becomes irritable and excitable by its intoxication. Its effect is more acute and prompt in persons of weakened intellect and who abuse moral power than those who observe moderation.

Bhang seldom acts as an exciting cause of insanity. It does not act at the commencement on the brain, but it does on the digestive organs first, and gradually the intoxcation travels on to the brain. I have seen some good songsters and athletes who, without using either ganja or bhang, could do nothing; but when once having enjoyed their favourite drug, they find their intellect and muscles respectively sharpened and could do the best of performance.

Usually a martyr of bhang, without it, has got his power of thinking or inclination of doing any other thing, a zero; but with the doses of bhang his intellect increases. This state of things remains for such time as the moderate use of the stuff could be borne. But when it reaches to the extreme, then either the overdose of the drug or the total want of it drives the man out of his senses, and he thus becomes a lunatic. When once in the asylum, the total abstinence from the drug, aided by the curative power of nature, exercised by rigid restraint, brings the man round. But a repetition of the same without much time or drug brings the man again to his former state, and thus the lunacy returns.

From the above it could be perceived that ganja is usually exciting and the bhang a predisposing cause of insanity, according to my oponion. The insanity produced by the effects of ganja is generally of a violent character and rarely a mild one. Amongst most of the murderers about 90 per cent. will be found to be ganja smokers.

The insanity of bhang is usually of mild type and temporary. Persons so affected have got some imaginary object in view; for example, some expects to find treasure; some thinks he is made of glass; some expects his friend, &c., and is very rarely of a violent character.

Insanity produced by both these drugs is of a temporary kind; but, if once cured, is apt to return if the same drug is indulged again.

Persons who generally use these drugs to an excess are mostly sadhus, jogis and bairagis. They having abandoned the world, are content amongst the society of their own. They neither speak much or interfere with other people. As this is also a kind of insanity, I consider the excessive use of the drug, though producing madness, its variety varies and the madness of the sadhus, jogis, etc., is one of them.

47. Children born of parents who are in the habit of excessive use of any of these drugs are mostly idiots and fools, often lunatics. But I have seen many such persons who have got no issue at all.

49. Often the moderate use of these drugs is practised as aphrodisiac, generally amongst prostitutes and whoremongers. Its effect is injurious, inasmuch as it tends to produce laziness, and thus cause persons to get more money by least trouble; consequently robbery, etc., is increased. Also it tends to prevent propagation on account of its property of checking the free formation of semen and drying up the blood from which the semen is formed. It is always the case that the persons

using these drugs are very thin, their blood, as it were, burnt up.

50. Please see my answer to questions 45, 46, and 49.

56. Effects of hemp in moderation is modified by the admixture of tobacco and occasionally by betel-nut. These admixtures produce a kind of soothing effect in nerves and on the organs of respiration, which by the use of hemp alone are usually affected by a feeling of dryness in the throat and causing irritability of the nerve centre. Admixture of dhatura, opium and cantharides are added (by those who use personally) to increase the state of intoxication, especially to prolong the time and frequency of sexual desire, and by some to allay their sickness, such as asthma, bronchitis, etc. When it is given to others, it is for the purpose of robbing.

57. I do not know if charas is ever eaten; but ganja is occasionally taken instead of bhang when it is not at hand.

In conclusion, all the preparations of hemp are injurious, taken in any form and in any quantity; and I am of opinion that the cultivation of this drug, if stopped (excepting for medicinal purposes), will prevent many people's ruin, crimes will be lessened, and the population of lunatic asylums will be very soon diminished.

---

25. *Evidence of* Dr. S. G. Steinhoff, *Medical Officer in charge, Charitable Dispensary, Khamgaon.*

1. Twenty-three years' medical practice among the people of this town and a knowledge of native habits and customs.

2. Bhang here is the leaves of only the female plant, the male plant is plucked out when young and thrown away. Charas here is not collected, nor imported, nor sold in the bazar. The flowering tops when separated from the rest of the plant is the ganja. The flower tops and leaves are cut off in one common stock and are arranged in flat sheaves about a foot-and-a-half in length and nine inches in breadth; and in this form reach the contractor's shop where the flower tops are separated from the leaves, and each sold separately. The stocks are used in the ganja shop for lighting fires. These definitions may be accepted. Charas, ganja, bhang.

19. Charas is not used here. Ganja is chiefly smoked, sometimes eaten like betel and drunk like bhang.

23. Bhang is usually drunk and not smoked, but it is sometimes smoked, (when the dearer ganja is not available to the poorer classes) to a small extent.

28. (*a*) Habitual moderate consumers. (Charas is not used, not being available.)

Ganja ¼ chattack . 2 annas.
Bhang 4 do. . 3 pies.

(*b*) Habitual excessive consumers—

Ganja 2 chattacks . 8 annas.
Bhang 16 do. . 1 anna.

29. Charas is not in use.

(*a*) Ordinarily ganja is mixed with tobacco half and half and smoked by all classes addicted to its use. (*b*) Exceptionally by few sadhus and fakirs, dhatura, opium, nux-vomica and aconite are mixed in order to enhance intoxication. I have never heard of cantharides and betel-nut being used. Without the tobacco no smoke will be produced. Tobacco therefore is indispensable in ganja smoking.

Bhang is ordinarily mixed with black pepper and cold water and drunk for its intoxicating effects. It is also mixed with bhang massala and taken as a cooling stimulating drink rather than as an intoxicant. But large draughts of this mixture are intoxicating.

Bhang massala, consisting of kasni, kulpha, kus-kus, sof, manooka, badam, kakdi-ka bij, dhannia, gulab-ka kali, mulati, kali-mirchi, wala, is sold in the bazar and used with the addition of bhang, kesar, kasturi, jaifal, jaipatri, pishta, elachi and sugar and water as a cooling drink in the hot weather by Marwaris, chiefly of the well-to-do classes.

30. Charas is not used at all.

Ganja smokers about 1 per cent.
Bhang drinkers „ 2 „

Mainly Hindus, Muhammadans scarcely who prefer opium and its preparations. It is mainly confined to male adults. Women and children do not usually consume these drugs, but women occasionally sip the bhang sherbet described above when prepared by the male members of their family, and these are exclusively Marwaris.

31. The habit is easily formed and not so difficult to break off as that of opium and alcohol. There is a tendency for the moderate habit to develop into the excessive.

32. At the festivals of the Holi, Sarawan, Devali, Akateez and Shivaratri, it is customary among the Marwaris to partake more freely of the bhang sherbet, but it is not essential. It is generally temperate and is not likely to lead to the formation of the habit nor prove injurious. At marriage feasts and on the occasions of the birth of sons bhang sherbet is dispensed to guests by the Marwaris as a class.

36. Alcohol is not being substituted for hemp drugs; it is dearer, and besides the Hindu, who is almost the exclusive consumer of hemp drugs, has an aversion to alcohol, and a preference for hemp, which is tolerated by his religion.

37. I have no experience of charas; but as it is the active principle of the hemp plant, it is more powerful than ganja and bhang. The effects of ganja smoking are more immediate and less prolonged than those of bhang drinking; intoxication is the result of both.

39. They are all equally injurious to the general health of the consumers, and the habitual excessive use of any of them has a tendency to produce insanity. The body becomes emaciated, strength reduced, appearance prematurely aged. The mind dull and inactive, a loss of energy and disinclination for usual duties.

40. Ganja is prescribed for dysentery by both Hindu and Muhammadan native doctors in combination with opium and jagri. Ganja is sometimes prescribed for painful internal affections of cattle. Bhang is often given to bullocks for the

sake of its supposed staying-power, before and after a long journey.

41. It is not beneficial under the 1st, 2nd and 4th headings. As regards the 3rd, these drugs are not used here either as a febrifuge or preventive of disease.

42. The use of any of these drugs is not harmless, as witness the worn-out, listless appearance of consumers, the wasted form and want of sufficient energy to carry out the ordinary duties of life, and defective will power.

44. In the moderate habitual consumer ganja and bhang are refreshing at first, then intoxicating to some extent. No appetite is created. The effect lasts for about an hour or two. The want of subsequent gratification does produce longing and uneasiness. It does allay hunger.

45. Charas is not used here. Ganja and bhang do produce noxious effects on body, mind and morals. The constitution gets soon broken down. Digestion and appetite are impaired. Chronic bronchitis is caused by ganja smoking. I have not seen dysentery or asthma result from ganja or bhang. To some extent the moral sense is impaired and lazy habits and immorality follow. The intellect is deadened, but insanity is not produced usually. The disposition of the consumer is changed. He is irritable and fretful, readily gets into a passion, and is quick to resent an offence, imaginary or real. A temporary fit of acute mania may occur resulting from a single excessive indulgence of the drug (ganja or bhang) as the exciting cause ; but he quickly recovers.

46. Physical mental and moral degeneration is intensified, and insanity is a frequent consequence. The insanity takes the form of acute mania with a homicidal tendency and terminating in permanent dementia.

47. No, the habit is not hereditary, nor are the children of the moderate consumers affected in any way.

48. In this case also there appears to be no hereditary habit, but the children are weakly in mind and body.

49. Charas is not used here. Ganja and bhang are sometimes used with this intention, but the result is disappointing. It is not so used by prostitutes. The use of these two drugs when used for their supposed aphrodisiac power is not more injurious than their use as an ordinary narcotic. The use of hemp does tend to produce impotence. The sadhus, who are inveterate hemp consumers, are more or less all impotent.

50. The excessive consumers of ganja and bhang never think of using them as aphrodisiacs. They very soon come to find that they are impotent.

56. The admixture of tobacco and the condiments mentioned in paragraph 29 do not seem to modify the effects of hemp ; but the admixture of such powerful drugs as dhatura, opium, nux-vomica and aconite intensify the intoxicating effect of hemp, and render the mixture a most dangerous one to use, and indeed fatal cases have occurred where this compound had been ignorantly self-administered under the impression of its being a powerful tonic and vitalizer.

57. Charas is not used here. Ganja is drunk mixed with black pepper and water in place of the leaves of the hemp (bhang) by those who desire a more powerful narcotic. Such consumers are more liable to become insane than the excessive bhang drinkers.

---

26. *Evidence of* Mr. Dinker Narayen, *District Superintendent of Vaccination, Buldana.*

1. My information in connection with hemp drug is based on the physical condition of such persons as have been in the habit of either drinking bhang or smoking ganja for the past twenty years, since which time I have known them.

2. There is only one variety of ganja, namely flat, which is used in the province. Flat ganja is prepared by being trodden under foot when it is fresh. Round ganja is not prepared in the province, nor is charas known to the people, who therefore do not import them. Hence no information regarding the round ganja and charas is given in any of the answers below. The definition 'flat ganja' is accepted in the province, and the term is locally known.

19. Ganja is used generally for smoking, and it is used everywhere in the province. It is sometimes used in eatables, either sweet or salt, on festivities and on fasting days.

23. Bhang is never used in smoking.

28. The habitual moderate consumers require one tola of ganja for smoking every day, and if they use bhang instead of ganja, they require a quarter tola of it. The habitual excessive consumers require three tolas of ganja or one tola of bhang for smoking or drinking per day. The cost of the drug in the case of moderate consumers is half anna, and in the case of excessive consumers it is one-and-a-half anna per day. The cost of the bhang is very trifling—a pie or two the most.

29. (*a*) Tobacco is ordinarily mixed with ganja for smoking.

(*b*) Persons who have better means exceptionally mix cloves, saffron, powdered sandal, nutmeg. In the case of bairagis and fakirs, who have given up the enjoyments of the world, and who pass life in solitude, dhatura, opium, nux-vomica, cantharides or betel-nut are mixed with the ganja to increase intoxication. Bad characters use the above drugs with ganja or bhang to cheat people, on whom they administer the preparation.

Bhang massala is not sold as a speciality in the province. It is, however obtainable in shops. Its ingredients are pepper, aniseed, dried rose buds, cucumber seeds, kachani, almond seeds, cardamoms, saffron, nutmeg, sugar and milk. These are used by those whose means are better. In the case of the poor only the pepper is used in bhang.

30. The consumption of these drugs is practised partly in solitude and mostly in company, but it is very limited. The drug is mainly used by male sex, and in a few cases it is used by very low prostitutes. It is, however, never used by children.

31. The habit of consuming the drug is easily formed, and it is difficult to give it up. There is a tendency in the case of a moderate habit to develop into excessive use.

32. In lower classes young persons sometimes use it in food on marriage feasts with a view to make their relatives insensible for a time. In

pleasure parties of the Holi holidays it is used by some. In both these cases it is used socially. On the Shivaratri fasting day, which is observed amongst the Hindus in honour of Shiva, one of the trinity gods, who is said to be very fond of the drug, it is used religiously amongst many classes of Hindus. However, the use of the drug is not regarded as essential, since it is strictly prohibited by the Vedas (books on religion). The consumption of the drug on such occasions is very moderate. Such a rare use of the drug does not lead to the formation of a habit, nor is it injurious, except that it brings on temporary insensibility.

36. That alcohol is now being substituted to a certain extent for the drug is highly improbable.

37. The effects of ganja and bhang are different. Ganja smoking produces intoxication very soon. It lasts for a few hours, and the consumer feels more heat, while drinking bhang brings on intoxication gradually, and it lasts for hours together, and the consumer does not feel much heat.

39. Smoking ganja of any preparation is more injurious than drinking bhang or eating the same, because smoking acts directly on the lungs and partly on the liver. It burns vitality of brains, brings on asthma sooner or later, and shortens life. Instances of insanity brought on by the consumption of the drug are hardly found.

40. I am not aware that any school of native doctors has prescribed the drug on account of its medicinal properties; but it is undoubtedly very useful in the treatment of cattle diseases.

41. The moderate use of ganja or bhang is occasionally beneficial in its effects.

(*a*) It is accessory and digestive.

(*b*) It gives staying-power under severe exertion or exposure and alleviates fatigue.

(*c*) It is a preventive of diseases in malarious tracts.

(*d*) It mitigates anxieties and cares, provided it is consumed occasionally.

42. On the whole it is not beneficial, nor is the moderate use of it quite harmless. Because for a time, when one begins to consume it, it proves beneficial, but when he is used to it he has no effect of it, and ultimately it brings on asthma, bronchitis, and loss of appetite.

44. The immediate effect of the drug in moderate dose on the habitual consumer is that it keeps him in good humour. It is refreshing. It produces some intoxication. It allays hunger and creates appetite. The effect lasts for three hours. When the consumer is free of its influence, he feels depressed and dull; he is unable to do any work. Want of subsequent gratification produces uneasiness.

45. The habitual moderate use of the drug produces after some years noxious effects, both physical and moral, but not mental. It impairs the constitution of the consumer, injures the digestion, causes loss of appetite. It causes dysentery, bronchitis or asthma. It impairs moral sense, induces laziness and habits of immorality and debauchery when the consumer is in the prime of his life. It deadens the intellect, but does not produce insanity.

46. It does no good to habitual excessive consumers, but it shortens his life on the contrary.

47. The habitual moderate use of the drug is not hereditary, nor can it affect the children of the consumer.

48. In the case of excessive consumer of the drug the maladies of the consumer are said to come to his children.

49. The moderate use of the drug is practised as an aphrodisiac. It is also used by some prostitutes. The use of the drug for this purpose is more injurious than its use as an ordinary narcotic, because it has a serious effect upon the generative system. His passion is only satisfied by further recourse to stronger doses, and in a short time the person is subjected to consumption. Its use in some instances tends to produce impotence.

50. Those who use the drug to excess easily fall victims even to common diseases.

56. The effects of the drug used (*a*) in moderation, modified by the admixture of other substances, produces more intoxication than that used without admixture; and (*b*) when it is used to excess it makes the consumer quite senseless.

When dhatura, nux-vomica, cantharides, opium, or betel-nut are mixed with the drug and used, they bring on insensibility to the persons on whom the drug is administered. People who live by unfair means use such drugs to cheat other persons.

57. When ganja is eaten instead of smoked it produces more heat and intoxication, which lasts longer.

In conclusion, the use of the drugs is condemned by every class of the people, and it is strictly prohibited by religion. That they are injurious and destructive of human life does not require other evidence than the present great mortality in the province, in which the consumers of the drugs are the first to fall victims.

---

27. *Evidence of* M. Doorgiah Pillay, *1st Class Hospital Assistant, in medical charge, Akola Dispensary.*

1. From information I gathered from smokers and drinkers of both ganja and bhang, and from other reliable sources, and also from my own experience as a medical man, I have framed my answers.

2. Yes, charas is very little used, or I may say is very seldom used in this province, but ganja and bhang are very commonly used. They are locally known as ganja and bhang respectively.

19. So far as I know, ganja is used generally for smoking, but it is also used mixed with other ingredients for making lahum or majum for intoxicating and immoral purposes, and is prevalent more or less throughout Berar.

23. Yes; it is somewhat used as smoking, but generally it is drunk prepared with bhang massala. It is used by mendicants, such as fakirs, gosais, sadhus, bairagis, and also by poor classes of lower immoral section of the community to a great extent; but it is also used among respectable classes on certain days of the year for sake of luxury.

28. (*a*) About four or five masas, costing 3 pies per diem.

(*b*) About 20 masas, costing 1 anna and 3 pies.

29. (*a*) Ordinarily for smoking a little tobacco is added, and for eating it is prepared in the form of sweets for aphrodisiac purposes and luxury.

(*b*) Exceptionally it is mixed with opium, dhatura, nux-vomica, for unusual intoxication.

Bhang is ordinarily prepared with sugar and milk for drinking purposes, and it is also prepared for drinking with bhang massala. The object of these admixtures is ordinarily for pleasures, and exceptionally it is used to nerve men for some deed of violence, and sometime also for poisoning. Yes, I know the ingredients, and I give them below.

Bhang massala.

Bhang or subji.	
Kali miri . .	Black pepper.
Goolab-ki kali . .	Rose bud.
Kura-kakdi-ka binj .	Cucumber seed.
Badam . . .	Almond.
Dhania . . .	Coriander seeds.
Kaskas . . .	Poppy seeds.
Ilaichi . . .	Cardamom.
Mulatti . . .	Liquorice.
Kaisar . . .	Saffron.
Sugar.	
Milk.	

30. In my opinion it is practised equally in solitude and in company. It is mainly confined to the male sex and to the period of early manhood. It is never used by respectable women. Certainly, it is not usual for children to consume any of these drugs.

31. Yes, the habit is easily formed. It is somewhat difficult when the habit is thoroughly formed to give it up, but it is not attended with any danger. There is a decided tendency for the moderate habit to develop into excessive.

32. So far as I know, and from the information I gathered, there are no social or religious customs in connection with which the use of these drugs is considered so essential.

36. Yes, to a certain extent it is attributable to a better financial state; when the smokers become somewhat better off in pecuniary circumstances, then they give up smoking, and take to alcohol as a fashionable drink in substitution of ganja. I am not able to offer any proof, but I speak from my personal knowledge.

37. The effect of charas differs, so far as I know, from ganja that the former immediately stupefies the smoker quicker than the latter, and the effects of drinking bhang are more lasting and injurious than smoking ganja.

39. In my opinion and from the informations I gathered the drinking or eating of any form of plant is more injurious than smoking, and my reasons are to the testimony of users of the drugs whom I know.

40. To the best of my knowledge and belief, these drugs are rarely prescribed by native doctors for cattle diseases.

41. (*a*) No, not permanently.

(*b*) Yes, temporarily.

(*c*) Yes, in some malarious districts to foreigners temporarily visiting such districts, but not to the permanent inhabitants.

(*d*) Not that I am aware of.

42. No; I cannot consider even the moderate use to be harmless, because even the moderate use of the drugs for aphrodisiac purposes, and also the moderate use of the drugs has a decided tendency to develop into the excessive use.

44. (*a*) The immediate effect of the moderate use of the drugs is simply to allay the pain, cramping, and other accompaniments of the nervous reaction which follows the previous indulgence.

(*b*) Only so far as above.

(*c*) Yes.

(*d*) It does.

(*e*) Yes, false appetite.

(*f*) About two or three hours.

(*g*) The after-effects are prostration, vertigo, etc.

(*h*) Yes, as above.

45. (*a*) Yes, it does to a certain extent.

(*b*) It does.

(*c*) Yes, to a certain extent.

(*d*) Yes, the excessive use.

(*e*) It does most decidedly.

(*f*) It does. In my opinion it is very exciting, and it has been observed to be without predisposing cause of insanity. It does produce insanity, but of a mild type, and is of a temporary nature. Yes; it is reinduceable after liberation of restraint by use of the same drug. Rarely. Yes; those who possess no history of ganja smoking confess to the use of it.

(*g*) From information in my possession, I am of opinion that persons suffering from mental anxiety or brain disease, who obtain relief in explaining their connections or considering themselves as relief from insanity, under which they may have laboured, and persons deficient in self-control do indulge in the use of hemp as improving measure.

In my capacity as a medical man, I fell in several places where persons who after being cured of temporary insanity have confessed of their having found relief in their reverting to the use of hemp, but I am unable to quote any particular case, as it is now a protracted period since I became acquainted with the foregoing facts.

46. It does produce noxious effects, physical, mental and moral. It does destroy constitution. It does destroy digestion. It does cause dysentery, bronchitis and asthma. It paralyses moral sense, and induces to laziness, theft, cheating, and general debauchery.

47 and 48. I doubt very much as to its being hereditary.

49. Yes; very widely. I cannot say whether it is used by prostitutes. Yes; the use for this purpose is more injurious than is used as an ordinary narcotic, because it stimulates unnatural passion, the indulgence of which produces the additional drain of excessive seminal loss in addition to the nervous reaction following its use as an ordinary narcotic. Yes; it tends to produce impotence.

50. The result as above, but corresponding worst.

56. The effect of hemp is modified according to the substance mixed with it, for, *e.g.*, tobacco mixed with ganja would lessen the effect, whereas dhatura, nux-vomica, and opium mixed with ganja would naturally increase the effect, as personal consumption they take it for excessive intoxication, but for administration to others to produce stupefaction for the purpose of robbery, etc.

57. Ganja in the shape of majum with other ingredients is used for eating. Charas probably is not known in this province.

In conclusion, I beg to lay before the Commission the opinion of very eminent authors transcribed separately and hereto attached,* and under which I have added my own opinion as to the injury both to body and mind by the use of hemp.

From the experience which I had, and from the information I have gathered, as well as different authors whom I have closely read, I may safely say that the use of the drug herein discussed is certainly very harmful, *e.g.*, ganja eventually makes a smoker stammer and impotent, and bhang, which is considered to be of a cooling property, gives false appetite and eventually impairs digestion and exhausts constitution.

* Not received by the Commission.

28. *Evidence of* M. Poonambalam Moodeliar, *First Class Hospital Assistant, Shegoon.*

1. During my long service of twenty-five years, I have had several opportunities of seeing cases poisoned by hemp, and from my long experience, I give the information asked for.

2. The names given by Dr. Prain to the hemp plant, *viz.*, ganja, charas and bhang, are the same as we call them.

19. Yes; ganja is used for smoking, and charas is very rarely used. It is mostly consumed, but its use by the people has different effects and actions when it is used differently. In this country it is used also in a very small proportion as medicines, wholly among the lower classes of people, and very rarely by the educated people: those who have very little contact with the doctors, to apply as a paste by mixing it to headache, etc., in order to stupefy the painful surface.

23. Bhang is very seldom used, if at all used, by lower class of people for drinking only.

28. (*a*) A tola, cost half an anna,

(*b*) Four tolas, cost two annas.

29. They add only tobacco to increase narcotic properties. I am not aware that any of the drugs shown are used for smoking. I have not heard nor been told that bhang massala is sold in the bazar; but the consumers prepare by adding the following ingredients, *viz*:—sugar, coriander, black pepper, milk, cardamom, aniseed, rose buds, and almonds.

30. That the consumption of these three drugs is more excessively used in company than in solitude. The habit is mainly confined to the male sex, and they give to the children in the form of majum when they choose to give them.

31. The habit of these drugs is easily formed. It is not difficult to break off. There is every tendency for the moderate habit to develop into the excessive.

32. There is no custom, either social or religious, to consume these drugs. It is generally excessive, and is likely to lead to formation of habit and injurious.

36. There is no reason for thinking that alcohol is being substituted to a certain extent for any of these drugs.

37. The effect of charas smoking is stronger than ganja smoking, and that bhang drinking, although milder than the above, keeps its narcotic properties for a longer time.

39. The smoking of hemp plant is not in any way a less injurious form of consumption than drinking or eating the same. It produces dryness of the mouth, thirst, cough, and weakens the constitution.

40. It is very scarcely used.

41. The moderate use of bhang, charas and ganja is in no way beneficial.

(*a*) Not at all.

(*b*) Yes; it gives staying-power under severe exertion and to alleviate fatigue.

(*c*) Never prevents in malarious unhealthy tracts.

(*d*) No.

42. Even moderate use of these drugs is injurious, because it produces laziness, weakens the constitution, and acts on the generative system, and makes the man at last impotent.

44. It acts immediately when smoked as a stimulant and narcotic. It is not refreshing and produces intoxication. It does not allay hunger and create appetite. The effect lasts about four hours in smoking. In drinking and eating, the action lasts for about twelve hours. It brings on subsequent gratification and longing.

45. (*a*) Even moderate use of these drugs produces noxious effects on mental, moral and physical powers.

(*b*) No.

(*c*) Yes.

(*d*) Produces bronchitis.

(*e*) It induces laziness.

46. It makes the man, when habitually and excessively smoked, very weak, deadens intellect, produces weakness, and shortens life.

47. No.

48. The habitual excessive use makes a man poor, who never attends work, and loses whatever he has; and lastly, he robs in order to get the drugs, and leaves his family and children to their fate.

49. Gradually increases impotence, and it is not much used by prostitutes. The use is more injurious than ordinary narcotic. It makes the man weak and dries the secreting organs, and thereby produces impotence.

50. By excessive use of these drugs, makes the man altogether impotent and quite unfit for any work.

In conclusion, as far as my long experince goes, I have to say that the use of these drugs is not at all beneficial on the human frame. It affects the physical, mental and moral powers, and prevents the development of the manhood. When once the man is addicted to this vice he loses all the wealth and reputation, and lastly robs when he is penniless. It makes a man very weak, and shortens life.

29. *Evidence of* R. N. MUDHOLKAR, L.M.S., *Private Medical Practitioner, Amraoti.*

1. I had no special opportunities of obtaining information regarding the hemp drugs, except what information I was able to collect since the receipt of these questions.

2. These definitions may be accepted for our provinces. The products are locally known as ganja, bhang and charas.

19. Ganja is generally used for smoking, and is very rarely used as a drink by those who are excessively addicted to the drug. Charas is always used for smoking.

23. Bhang is never used for smoking. It is always used as a drink.

28. (*a*) Habitual moderate consumers can smoke or drink about an ounce of ganja or bhang in a day. The cost of an ounce of ganja is one anna, and that of bhang is one pice.

(*b*) Habitual excessive consumers can smoke or drink about eight ounces of ganja or bhang in a day.

29. Ganja is ordinarily smoked with tobacco. The rich and luxurious people mix jaya-patri and powder of sandalwood with ganja to give fragrance to the smoke.

The ingredients of bhang massala are:—Pepper, aniseed, rose buds, cucumber seeds, poppy seed, almonds, milk and sugar.

30. Ganja is smoked in solitude, but bhang is drunk in company generally. No; it is not confined to the male sex only. Many Muhammadan prostitutes and other low caste women can be found smoking ganja. Children never consume any of these drugs, although exceptions may be found of children drinking bhang only.

32. In Northern India, and especially in the North-Western Provinces and among the Marwaris, bhang is generally drunk in the hot weather and on the Maha Shivaratra day. Among the Hindus during the Holi holidays, bhang is drunk if there is any social gathering

36. I do not think so.

37. There is no cultivation of ganja in this province, and therefore charas is not known and never used by anybody. Whatever ganja or bhang is consumed is brought from outside. Hence I could not get any information about this.

44. The immediate effect of ganja smoking is drowsiness and tendency to sleep. It is not refreshing. It is, on the contrary, depressing. It does not produce intoxication in habitual consumer. Soon after ganja is smoked or bhang drunk there is craving for food. The effect lasts for from two to six hours. The after-effects are giddiness, headache, sometimes vomiting.

47. No; the habitual moderate use of the hemp drugs does not produce a hereditary habit, nor does it affect the children of the moderate consumer.

49. No; it is never used as an aphrodisiac. It is never so used by prostitutes. The use of hemp does not tend to produce impotence.

---

30. *Evidence of* G. V. KOT, *Brahmin, Medical Practitioner, Amraoti.*

1. As head of the Medical Department in the State of Rutlam and also in connection with my private practice.

2. Yes. By the same names of ganja, charas and bhang.

8. I hear the area of cultivation is extremely limited by order of Government.

10. No. They are of the same classes as other agricultural cultivators.

13. I hear the cultivation is restricted from information received. I hear that the hemp plant can be and was cultivated in many parts of Berars.

16. Yes.

17. I hear they can be and are prepared by any classes who are interested in their production.

18. Yes, they deteriorate and lose their effect. For nearly two years. The causes of deterioration in my opinion are exposure to air and on account of the volatile nature of the resinous substance adhering to it. The measures for prevention of deterioration should be its packing in hermetically sealed tins as is done for bird's-eye tobacco. Such tins being opened at the time of using.

19. Yes; they are used for smoking only, excepting for medicinal purposes. In Berar charas is not obtainable.

20. Ganja is used generally by the lowest classes of Hindus and Muhammadans, and the proportion is about 2 per cent. for the whole population. However, there are persons in the best classes of Hindus and Muhammadans who smoke ganja, and the proportion of such cases, I think, is about 1 in 1,000.

21. Smokers make no difference in flat or round. They say chur is less powerful.

22. Charas, I hear, is not imported in Berar.

23. I hear it is not used for smoking.

24. The practice of eating or drinking bhang is more prevalent in the inhabitants of Guzerat, Marwar, Mewad, Central India, the Native States of Central India, and the inhabitants of Northern India than it is in the other remaining parts of India.

A proportion of the inhabitants of the above-mentioned parts, wherever settled, will be found eating or drinking bhang. It is used by the inhabitants of other parts of India, but very occasionally.

25. On the increase certainly, and this will be found from the statistics of sale from Government.

26. Ganja smoking.	Bhang eating or drinking.
1·70 per 100	0·30 per cent.
0·10 per 100	·10 „
0·10 per 100	1·50 „
0·10 per 100	0·2 „

The above percentage refers to smokers and drinkers only and not to all the inhabitants of a town or country.

27. The smokers are generally of the lowest grades of society and the respectable who have been addicted to smoking are generally through contact or association with the low, or occasionally the habit has been induced to allay pain or infirmity. Bhang eating or drinking is more prevalent in the respectable than ganja smoking, and this custom has

taken root on account of its connection with religious ideas. The religious mendicants both in Hindus and Muhammadans who pass idle lives and persons living on charities are generally addicted to this vice.

28. Ganja smoking.	Bhang eating.
(*a*) ½ a tola per day (*b*) ⅘ tola per day.	(*a*) ¼ tola per day.

The cost is about a pice for an habitual moderate consumer and about an anna to one and half an anna for an habitual excessive consumer.

29. Ordinarily mixed are betel leaves, cardamoms, and tobacco in smoking. Dhatura is mixed by the inveterate for making the stuff more narcotic when the smoking of ganja becomes ineffective by habit.

In eating or drinking bhang the ingredients that are used in its preparations are dried rose buds, poppy seeds, cucumber seeds, aniseed, sugar and black pepper.

These ingredients for smoking or drinking are added in order to give good flavour and taste.

Bhang massala consists of the above-mentioned things.

30. Ganja smoking is practised in company by the low when practicable and available. By the respectable it is usually practised in solitude. Bhang is generally drunk in company by the respectable. Ganja is smoked by a few low females. Bhang is used by some low females; respectable females do not use either. Bhang is occasionally drunk by children.

31. More easily than other narcotics, and the habit is not more difficult to be broken off than other narcotics. There is no tendency.

32. The eating or drinking of bhang is obtained in the respectable inhabitants of parts of India mentioned in 24 as an occasional indulgence on fasting occasions and on holidays. It is temperate, and does not lead to the habit, and is not injurious to the constitution so far as its temporary effects are concerned. In the same way ganja smoking is resorted to by the low, but to a much less extent than bhang drinking is in the respectable.

33. Ganja smoking is looked down upon. Bhang eating or drinking, though considered a bad habit, is tolerated and is not objected to. Socially the objection is raised on account of their narcotic properties; religiously there is no objection. Ganja smoking is in disrepute on account of the smell of the smoke. Otherwise why ganja smoking should be more looked down upon than bhang eating or drinking I do not understand, as the effects of both on the brain are nearly identical.

34. Yes, to the habitual consumer. In the same way as the privations of other narcotics would be to their respective consumers.

35. It will cause much discontent in the consumers. Those that use this drug only which is allowed to them by their religion will not take of any other drug.

36. I do not suppose alcohol is being substituted for this drug.

37. Only in degree than kind, charas being stronger than ganja.

38. Chur is less potent than ganja.

39. I think smoking of ganja is more injurious to the constitution and mental faculties than eating or drinking of bhang. The reasons are the effects observed of both forms, also the resins exuding from narcotic trees are generally stronger than other parts of them.

40. Its preparations are used in hysteria, mania, insomnia, and uterine affections by the school of native doctors.

Bhang is used in cattle diseases.

41. (*a*), (*b*) and (*c*) Yes.

Nearly 50 per cent. of the habitual moderate smokers of ganja use it for purposes mentioned in (*a*) and (*b*), nearly 10 per cent. for purposes mentioned in (*c*), and nearly 10 per cent. of the occasional moderate smokers use it as a febrifuge. I have been informed of cases in which attacks of intermittent fevers (ague) have disappeared by a single process of smoking ganja—cases I mean of jungle fevers, in which the administration of even large doses of quinine have failed to ward off the attacks or in districts in which quinine is not obtainable.

42. I think it is beneficial in cases mentioned in 41.

It is beneficial in cases 41 (*a*) and (*b*), in that poor people get an extremely inexpensive article as a digestive and as a stimulant, and also in 41 (*c*) in cases of malarious fevers.

43. Yes, more inoffensive than spirit drinkers.

44. It is stimulant, or sedative, or refreshing, according as the habitual consumer resumes work or returns from it. It produces no intoxication in the habitual moderate user. It does create appetite. The effect lasts for nearly a couple of hours. It produces longing and uneasiness at the prescribed period in the habitual moderate consumer.

45. (*a*) Yes; its habitual use produces deterioration of physical frame, perversion of mental faculties, and induces low moral principles.

(*b*) The constitution is weakened and debilitated.

(*c*) No. On the contrary, the appetite is encouraged and digestion rendered easy.

(*d*) The smoking produces cough and asthma in some cases.

(*e*) In the habitual excessive users and exceptionally in the habitual moderate users.

(*f*) In some cases of habitual moderate users the form of insanity known as dementia manifests itself, and generally it is of a chronic kind and it is also primary. As far as I have seen, there are no typical symptoms. These resemble symptons in dementia induced through any other causes.

(*g*) I do not know of cases of insanity produced by using the drug for allaying mental anxiety or pain in brain diseases. I cannot say so. I have seen and known of such cases, but they were not under my treatment, and so I am unable to give a detailed history.

47. It is not. It does not affect the children in any way.

49. By the occasional moderate users; it is used by the low prostitutes. It produces weakness of virile powers in habitual moderate consumers.

51. No; only a small proportion.

53. Yes, in solitary instances. I know of one case in Mhow where a person killed and wounded several persons by running amuck by indulgence in excess by this drug.

54. Generally where revenge is the object.

55. Yes. Complete stupefaction is induced in persons who are not habituated to it after the preliminary stage of excitement.

56. The habitual smokers of ganja in some cases add dhatura and aconite to it in order to intensify the effects.

58, 70. I am unable to give any information relating to this chapter, as I am not acquainted with administration, taxation, and control of hemp.

---

31. *Evidence of* Khan Bahadur Nawab Muhammad Salamulla Khan, *Jagirdar, Deulghat, Buldana District.*

1. My information is based on local inquiries made by me from the persons concerned with hemp drugs and on what little I have seen of hemp consumers.

2. The hemp is not cultivated at present in this district. Its cultivation is almost ceased since the prohibition made by the Government for its cultivation without a license, and I am told that when it was cultivated in this district even then its cultivation was very limited and only ganja and bhang were the products of the cultivation. Charas was not being obtained from the plant.

3. Hemp is not grown here at present, but I am told that it is grown in the Khamgaon taluk about the village Sutala, and hemp grown there is almost sufficient for the wants of the province.

5. It could be grown in any rich soil in this district, provided it is watered freely.

6. It is dense.

8. Since the introduction of the license system, there has been great decrease in the area under the cultivation of hemp, and the reasons of this decrease are as follows:—

1st—The cultivators think it troublesome to obtain a license.

2nd—The cultivation of hemp is not always successful, and if the male plant called bhangra is not picked by experts, the whole cultivation ruins and the cultivator risks the tax of the license.

3rd—There is not much demand for ganja, as the cultivator cannot sell it by retail, and he is to sell it to licensed contractors, who know very well that no one besides them would purchase it and therefore buy it at a fallen price.

10. The persons who cultivated hemp for its narcotic properties were not of special class, but ordinary cultivators, but only those who had rich soil and good supply of water used to cultivate it.

13. *Vide* answer to question 1.

16. Yes; bhang is generally prepared by the people in their houses from the ganja leaves, and it can be prepared from hemp plant leaves wherever grown, but the quality differs according to the quality of the ganja.

I have not met a man who has seen charas prepared in this district.

17. By no particular class of people.

19. Ganja is used for smoking; charas is hardly used by the people of this district, and it is not obtainable here. Ganja leaves are also used for making bhang. Some people on some ceremonial occasions mix a few ganja leaves with curry powder and cook the curry and also mix leaves with gram flour and make *bhajias*. The eating of this curry and *bhajias* almost turns the eaters half mad, and it is supposed to be a fun, but this kind of usage is amongst very low class people of Hindu and Muhammadans and sometimes it has produced very bad effects.

20. There is not a particular class of people who smoke ganja. Muhammadans, Hindus, low caste Mahars, etc., have been found in the habit of smoking ganja all over the province; but if there should be called the special class, I should call the Muhammadan fakirs and Hindu gosais and bairagis as a class who smoke ganja.

22. Charas is not used and obtainable in this district.

23. I do not understand this question. What is called bhang here is prepared this way: the leaves of ganja plant are washed and boiled in the water and afterwards according to the means and taste of the indulger are mixed with sugar, pepper, etc., and taken. The preparation is called bhang, and it cannot be used for smoking.

24. There is no particular class as I have said before, but the proportion of people who eat and drink bhang is very limited all over the province.

25. I believe the use of ganja, charas and bhang is on decrease. All the people who are dedicated to its use are found to be old persons, and I have hardly noticed any young man dedicated to the habit; and it is not the case that people of elderly age take to these habits, and I have also ascertained from contractors that now the consumption is much less than it was before.

31. Yes, it is easily formed and it is difficult to break, and there is a tendency in the case of any of these drugs for the moderate habit to develop into excessive. I am told the habit of consuming ganja is taken by smoking it with friends.

32. There is no social or religious custom amongst Muhammadans of consuming ganja, bhang or charas. The use of all these drugs is strictly forbidden by the Muhammadan religious codes, and the persons dedicated to the use of any of these drugs are looked down upon even by the lowest society of the Muhammadans. Muhammadan fakirs of low class use ganja and bhang openly and publicly, but they are vey severely reprimanded by the ministers of religion.

33. This question has been answered in the above.

34. It will be a serious privation for the class of the consumers, as it is always hard upon one to be deprived of any narcotic habits; but I have no idea of the number of each class. I have already said before that the number is very limited.

35. Yes; it would be quite feasible to prohibit the use of all these drugs, and it would not be illicitly consumed; if the cultivation of hemp is prohibited all over India and its import is also prohibited and keeping of it in the house is made punishable, its illicit use would be impossible. There is no doubt that this prohibition would occasion a serious discontent among the consumers, and such discontent would form a discontented class of people who would be a dangerous class of people at the time of any political outbreak. No doubt the prohibition would lead the consumers to take to some other drug according to each individual's fancy and convenience.

36. I do not think alcohol is substituted for these drugs. Taking to alcohol is a different ques-

tion and has nothing to do with the substitution for these drugs.

41. It is supposed by the consumers of ganja and bhang that the use of both these drugs assists digestion and is beneficial to the health, but I have no belief in it and I think the use of them is injurious in every way. It gives immediate relief in some cases of disease, but the effect does not last long and results in injury. It is said that it is good for asthma, but I have seen many ganja-smokers severely attacked by asthma.

42. Even the moderate use of hemp drugs is not harmless. Ganja consumer turns a silly fellow if not a half-cracked.

43. It depends upon a man's temperament.

44. I have no idea, but the effect of ganja is said to be immediate on the consumer and it lasts for a few hours only.

45. Yes. The use of these drugs even in moderation affects the moral character and brain of the consumer and results in immorality. The man loses all the control on himself when under its influence, and the result can be imagined. A man who takes to excess turns almost half-cracked.

---

32. *Evidence of* G. S. KHAPERDE, *Brahmin, Pleader, Amraoti.*

1. I am an inhabitant of these parts, have worked as an Extra Assistant Commissioner and Magistrate for some time in this province, and have conversed with officers on matters connected with hemp drugs. I have also spoken to ganja contractors and other persons likely to have information.

2. These definitions may be accepted with this limitation that in this province ganja is usually manufactured not by treading, but by piling the twigs one on the other and then pressing them with a heavy stone or other substance. Round ganja is not much known, and charas is very seldom or never sold. The patti or leaves are known as bhang, and the prepared flower-tops as ganja.

3. It is said to grow spontaneously in some parts of Melghat in Ellichpur district.

4. There are no different names. It is known as bhang plant.

5. It requires a damp climate, good soil, and plenty of leaf manure.

7. There is between 14 gunthas to 2 acres of land in Morsi taluk in the Amraoti district, in which hemp is cultivated. Some is also grown at Saloda in Amraoti taluk. It is cultivated for the production of bhang and ganja only. No charas can be produced from the ganja plants in Berar, because they are said to be of inferior quality. The proper plant yielding charas is Baluchar and grows in Upper India. Nothing is made and can be made of the fibre and seeds of the ganja plant grown here.

8. Decreasing, because it admits of being easily imported from the neighbouring provinces, and also because a special assessment of Rs. 10 an acre is demanded, which is considered prohibitive.

9. Is sown at Mirag or sometime about the 5th of June, along with jawari. Each plant is put at a considerable distance from the other. Male plant is carefully eliminated.

10. No special class. The cultivation of bhang requires skill, and whoever possesses it cultivates the plant.

11. Never, so far as can be ascertained.

13. There are no restrictions except that of the assessment of Rs. 10 an acre, and that the cultivator cannot sell it to anybody except to the ganja contractor. It is not restricted to any district.

14. Yes. Bhang and ganja. They are generally prepared by the consumers. People addicted to the use of bhang prepare it in their houses. The same is the case with ganja, except that sometimes the ganja contractor prepares it for his customers.

15. *Bhang*—

Take the leaves, put them in a copper pot and boil them well to increase their intoxicating power. Then throw away the water, and thoroughly dry the leaves. Of these take a few, pound them well and mix with them pepper, kasni, dried rose buds, cucumber seeds, almonds, and sonf. Pound this mixture again and strain it. Throw away the deposit, and take the strained watery substance, and add to it milk and sugar, and then it is ready for being drunk. This is about cultivated bhang. I know nothing about wild bhang.

Ganja—

Take well-dried flower tops, and steep them in water for about half an hour and then rub them on the palm of the hand until they become sticky. Then mix tobacco with them and they are ready to be smoked.

Bhang mixed with sweetmeat is eaten and is called majun. At one time it was much prepared at Balapore in Akola district and was known as *gulab chakadi* or *devalal*.

Ganja is never eaten and bhang never smoked.

16. (*a*) and (*b*) Yes.

(*c*) No, probably not, as in the wild state male plant would not be eliminated.

17. As a rule, consumers prepare ganja and bhang in their houses. The Muhammadan sweetmeat sellers prepare majum and sell it.

18. I know nothing about the charas, but bhang and ganja spoil by keeping long, and lose their effect. Bhang and ganja, if properly looked after, will keep well for about two years. Damp ruins ganja. Protect it from damp.

19. Ganja is always smoked. I know nothing about charas.

20. Fakirs, gosains, udasis, religious mendicants generally, and people working in the damp mostly smoke ganja. Nearly ninety per cent. of them smoke it.

Charas is here unknown.

23. Bhang is never smoked.

24. Marwaris, some Upper India men, fakirs, udasis, and gosains drink bhang.

They generally drink it in the evening outside the town in some garden or other place where water is fresh and abundant. They drink it after all the day's work is over.

25. It is on the decrease, partly because liquor is more easily procurable, and costs less trouble, and partly because the rates of bhang are going up. No bhang drinker will, however, as a rule, take to drink.

27. These are all generally good and law-abiding people. Some of them are respectable. Working

in damp, exposure, forced abstinence, lead to the use of the drug.

28. Two chataks.

29. Ingredients mentioned in my answer to question 15 above.

Dhatura is not known to be mixed here, except in very rare cases. Equally rarely is also bachnag mixed. The object is to increase intoxication.

Yes. It is sold in Bombay and other large cities. For its ingredients *vide* answer No. 15.

30. It is a social vice and is generally indulged in company. It is confined to males. Children never consume it in these parts.

31. (*a*), (*b*) and (*c*) Yes.

33. It is regarded with aversion. Children and women are protected from it. It is socially condemned, though there is no religious objection. The disrepute is due to its inducing insensibility and is supposed to lead to impotency. No; none that I have ever heard of.

34. Yes, to Marwaris, mendicants and others mentioned in my answer to question No. 20, because once one gets addicted to the use of it, he cannot take to another intoxicant, and suffers both in body and mind.

Roughly they may come to about one or two per.cent. of the entire population, but this is a guess only.

35. (*a*) No.
(*b*) Yes.
(*c*) It can never be enforced.
(*d*) Yes.
(*e*) There would be no political danger.
(*f*) No.

36. Yes, good opium and good liquor are driving it out of market.

58. I am acquainted with the present system of excise administration in my province, and consider it to be working well.

60. I think it sufficiently well controlled. There are rules on the subject.

68. There are shops licensed for the sale of these drugs and their preparations, but they are very rarely or never consumed on the premises. They do not differ from other ordinary shops.

69. The wishes of the people are not formally consulted or considered, but a good District Officer knows generally where to put and where not to put these shops. If a particular shop is objected to, it is generally removed. Yes, public opinion ought to be consulted.

---

33. *Evidence of* YESHWANT VAMAN DIGHE, *Pleader, Basim.*

1. From information derived from ganja smokers, traders and licensed sellers, and Berar Excise Reports.

2. Yes. With the exception of charas and round ganja, which are not known locally; the others are. The following are the additional names by which the products of the hemp plant are known, *viz.*, bhangra or bhagar (male plant), buti or kalhi (female plant).

3. Grows spontaneously everywhere, but not abundantly.

4. The wild plant differs in appearance and quality from the cultivated. It is not used as a narcotic.

5. None.

6. Scattered.

7. (*a*) Yes.
(*b*) No.
(*c*) Yes.
(*d*) No.

See Appendix D to the Excise Report for 1880-81. Cultivation limited to 29 villages at an enhanced assessment of Rs. 10 an acre, and area under cultivation is on the average, during the last nine years, 64 acres and 18¼ guntas. For the last official year (1892-93) the area was 85 acres and 39 guntas in Morsi, Akot, Khamgaon, Jalgoan and Malkapur taluks.

8. No accurate data to go upon; but before 1884 any quantity of land could be sown on payment of a fee of Rs. 8, but since that year the imposition of Rs. 10 on an acre grown must in all probability have produced a decrease. Only 125 acres and 39 guntas are shown as the area under the hemp plant prior to 1884, when the average for seven years is struck.

9. The method does not differ from that followed in the cultivation of the staple products of Berar (cotton and jowar). When the plants attain a height of a foot the male plants, called bhangra or bhagar, are weeded out in order to prevent the formation of seed in the female plant. It is sown in the month of July in well-manured ground. The plant grows from 3 to 7 feet high.

In Berar the leaves and broken pieces of ganja of the plant are collected and sold as bhang, and these are macerated in water to prepare the beverage that is drunk as such.

10, 11 and 12. No.

13. The only restriction is the payment of an enhanced assessment of Rs. 10 an acre. Cultivation is confined at present to only three districts *viz.*, (1) Akola, (2) Amraoti, and (3) Buldana.

No special conditions are necessary. But the soil called pandhri in Berar is more favourable than any other.

The latter requires good manuring. Cultivation impossible on marshy and rocky land. A good rainfall is required, otherwise artificial irrigation has to be resorted to. It is also sown in well-manured black soil.

14. (*a* Ye.
(*b*) No.
(*c*) Yes.

The preparation is made by the cultivators of the plant in those districts in which it is cultivated. The process is as follows:—

After reaping, the small shoots of the plant are cut off and left to dry for two or three weeks in the field and are then trampled upon until the larger leaves are eliminated, leaving the flowering top and small leaves. These are then sold to persons holding licenses or to traders holding special passes, either by weighment or *pullies*.

15. The wild plant is only used as incense in houses to drive away evil spirits and the effects resulting from an evil eye, from which specially

children are said to suffer. The methods of preparation of the cultivated plant are—(*A*) For smoking the flowering tops are rubbed with water and well washed with water until they are clean; when they are ready to be put into the *chillum*, it is mixed with a little (half to quarter the weight) tobacco and smoked. (*B*) The methods for eating are thus prepared:—

(1) A preparation called *chukti*. Take one tola of well-washed ganja and half fry it in melted butter, then set it to cool. Then pound it with quarter of a tola of black pepper and *somph* (aniseed). Then add double the weight of refined sugar, and eat morning and evening. The richer people flavour the whole with the addition of from 1 to 4 tolas of sliced almonds, a small quantity of saffron and cardamoms. The poorest people use ganja mixed up with jagri.

(2) *Majum*. Boil ganja in an untinned copper utensil; then, after straining off the water, again boil it over a slow fire with half its weight of melted butter in four times the quantity of water for about 7 or 8 hours; strain through a coarse cloth and let it stand to cool the whole night. Then skim and add syrup according to taste. The following are also added to give flavour and increase the narcotic strength, *viz.*, nutmeg, selap and safed misri, almonds, pepper, askandh, cloves, pimpli (*Piper longum*), mace, and saffron. Sometimes a little opium is added. The dose is three-quarters of a tola at a time.

(*C*) Preparations for drinking: Take the leaves of the hemp plant and macerate in cold water with pepper; then after straining the decoction is poured 10 or 15 times from one vessel to another from a height and then drunk. But the well-to-do people follow a more elaborated process. The leaves are first boiled and then put into cold water after being well pounded. Strain the decoction and drink it after adding the following—milk, sugar according to taste, and the pounded and macerated condiments as follows: poppy seeds, pepper, aniseed, cucumber seed and rose leaves; after all put in sliced almonds.

N.B.—The decoction of the leaves is several times poured from a height from one vessel to another, in order, it is supposed, to obtain the full effect of the narcotic principle contained in it.

16. Only prepared in houses. The wild plant does not yield either ganja or charas.

17. Made by all classes for home consumption. The preparation of the product called majum is usually sold by licensed sellers, but seldom made at home, as it involves trouble.

18. Yes. Ganja loses its effects in two years or thereabouts. For about two years with care it keeps good. Ordinary process of decay produces deterioration, which cannot be wholly prevented, but retarded by keeping ganja in a cool and dry place. The above remarks apply to bhang.

19. Ganja is used for smoking and eating, charas for smoking only in other parts of India. Besides the uses described in answer to the 15th question, ganja is medicinally used by native physicians all over the province.

20. All religious mendicants, such as fakirs, gosains, bairagis; also Muhammadans, bhois, day-labourers, cooks and artisans are mostly given to ganja smoking, and is not limited to any locality in particular. Charas is not used at all in this province.

21. Flat and round ganja are preferred for smoking. Different kinds are used in different places, as it is available. In Berar flat ganja is used. Round ganja is better than flat ganja and is used in Bengal and North-Western Provinces.

22. Native charas is chiefly used in other parts of India.

23. No, it is not used for smokinig at all.

24. (*a*) Bhang is occasionally used for eating. It is used more for drinking and by almost all classes of people in India and in hot parts of the country, specially by pardeshis, Marwaris and Brahmins and other persons in Northern India. Generally it is drunk in hot weather. In Northern India the proportion will be 50 per cent., and in other parts 5 to 15 per cent.

Not restricted to any locality.

25. Judging from the published returns of retail sales, the use of ganja (charas not being used) seems to have slightly increased; the reason, apparently, being that it is a cheap intoxicant.

26. (*a*) About 90 per cent.

(*b*) About 10.

(*c*) Five per cent.

(*d*) About one per cent.

27. Almost all classes, but principally those enumerated in answer No. 20. Privation, hard work, celibacy and asceticism lead to the habitual practice.

28. (*a*) Ganja. From one to two tolas, cost 2 to 12 pies.

(*b*) From 6 to 12 tolas. As regards cost, 1 to 8 annas.

With regard to bhang.

(*a*) From 2 to 4 tolas, (*b*) from 8 to 12 tolas.

The average cost per tola of ganja is from 2 to 6 pies.

Bhang is sold at 6 to 10 tolas per quarter anna.

Marwar bhang is sold at 2 tolas for 3 pies.

(*a*) Bhang: cost per diem 1 to 3 pies.

(*b*) Bhang: cost per diem 3 to 12 pies.

29. Ganja is mixed ordinarily with tobacco, and exceptionally with opium, nutmeg and sandalwood: the two first to increase the narcotic action and the last for flavouring. Dhatura is seldom used, and is confined to religious mendicants. The mixtures with bhang and ganja when eaten are given in reply No. 15. Bhang massala is unknown in this province.

30. With the exception of charas, the drugs are consumed mostly in company, rarely in solitude. Except the preparations for eating as described elsewhere (reply No. 15), ganja is confined chiefly to the male sex. A few prostitutes take ganja. The practice is not confined to any time of life; but with regard to bhang, women and children in Upper India partake of it generally, but very rarely in this province, where the males are the principal consumers. Ganja is generally consumed from the time of youth.

31. The habit is easily formed when in company with habitual consumers of ganja and bhang. It is difficult to break off. There is a tendency to excess.

32. As regards ganja, no customs social or religious can be quoted; but as to bhang, when the Shivaratri festival arrives, the preparation is used to bathe the image of Shiva, the destroyer. This custom prevails in Upper India, but is not regarded as essential. In Berar bhang is consumed moderately at the festival of Shivaratri. It is not likely to lead to the formation of a habit, nor is it injurious.

33. The higher classes deprecate the smoking of ganja, but not eating any of its preparations; while the consumption of bhang is not looked down upon. The objection to ganja smoking is based on its being considered a low habit and likely to prove injurious. The hemp plant is not known to be worshipped in Berar.

34. The classes addicted to smoking ganja and drinking bhang would look upon its prohibition as a serious privation. The reasons are that they would be deprived of a muscular tonic and an intoxicant of the cheapest kind, which cannot be substituted for the price. For Berar the 1891-92 and 1892-93 reports show the probable number of the class to be 1 seer and 26 tolas per 100 of population on an average for ganja smokers, *i.e.*, one tola per head. But the figure is not reliable.

35. It is feasible to prohibit the use of all of these drugs. It can be enforced by the stoppage of the hemp plant and its importation, in which case illicit consumption would be rendered difficult though not impossible. Great discontent would be caused among consumers, though it may not amount to a political danger. But a recourse to alcoholic stimulants and other drugs would become a certainty.

36. No.

37. There is no practical difference. But charas is a stronger narcotic.

38. Round ganja and chur are not in use in Berar.

39. Smoking is a more injurious form of consumption than drinking or eating, as the lungs seem to become affected after a time.

40. Native doctors do not prescribe the drugs, but as a home remedy ganja is alone used as a sedative and an astringent for dysentery. Ganja and bhang are used for vermicide in cattle.

41. (*a*) Yes, as regards ganja and bhang only.

(*b*) As above.

(*c*) Not known.

(*d*) Ganja wards off the injurious effects of impure and unfiltered water (germicide). No particular classes can be selected or any proportion stated. A moderate habitual use is referred to.

42. The moderate use is considered harmless and beneficial in the ways indicated in reply No 41. The moderate use of both ganja and bhang produces activity and vivacity in addition to other benefits.

43. Yes.

44. Bhang and ganja are refreshing. They intoxicate—ganja smoking especially—but do not allay hunger. Produce appetite. The effect of ganja lasts from twenty to sixty minutes, according to the state of health and strength of the consumer and the quantity used, whether smoked or eaten. There are no after-effects. Want of subsequent gratification produces longing and uneasiness. As regards bhang, the effects last from one to two hours, according to the quantity taken.

45. (*a*), (*b*) and (*c*) No.

(*d*) Ganja only produces asthma and bronchitis in old persons, not dysentery.

(*e*) The moral sense is impaired after long use, but laziness is not produced. Habits of immorality and debauchery are produced. Insanity is not known in Berar as an effect, nor a deadening of the intellect.

Bhang is perfectly innocent.

46. Execssive use produces all the evils mentioned in the previous question, so far as ganja is concerned, but bhang is harmless.

I do not, however, personally know of any case of insanity resulting from excessive use of ganja.

47 and 48. No, but if a parent or any other member of a family uses it, their sons and other members imitate and catch the habit sometimes.

49. Ganja is used as an aphrodisiac, but not bhang. Is rarely used by prostitutes. It is said ultimately to exercise a reaction and produce impotency after a lapse of time, *i.e.*, eight or ten years after.

50. The effects noted in the above reply are aggravated and require shorter period, *i.e.*, after four or five years.

51. No. None.

52. A large proportion of bad characters are excessive consumers and are given to commit petty crime and adultery for the gratification of lust. Bhang excepted.

53. It may, but I do not know of any case that led to homicidal frenzy.

54. No, but to alleviate fatigue and labour.

55. The preparation of majum is given sometimes to children, in order to stupefy them and facilitate the robbing of their ornaments; occasionally also given to women with intent to rob or dishonour them. Without admixture no complete stupefaction can be caused.

56. The admixture of milk, melted butter and almonds lessen the effects; so does rich, substantial meals. The gosains, fakirs and bairagis use dhatura to heighten the narcotic effect of ganja. Its admixture for administration to others is not known. Gosains use for personal use.

57. Know nothing of charas being eaten. When ganja is eaten it is next door to being harmless. When drunk in the form of bhang it is perfectly harmless.

58. It is capable of improvement.

59. In the direction of closer supervision over the cultivator and the seller.

60. Ganja is produced in the province. Greater and closer supervision over the cultivation of hemp is required, there being no separate establishment for this work, which requires a special staff.

61. Not produced.

62. Bhang being comparatively harmless, the only control necessary is to prevent the plant being used for making ganja. This might be accomplished by the aid of a special establishment and restriction of sale of the plant to one licensed vendor.

63. The only objection lies in the fact that the same vendor sells opium. The vendors should be separated for each drug, and hemp sold only in small quantities, say up to one tola per man per diem. A register of sales should be maintained.

67. The farm of vend of hemp should be put up to auction separately from that of opium.

68. None. Consumption on the premises undesirable.

69. People are not apparently consulted, but should be.

70. Smuggling is only carried on for private consumption. Duty is only paid on the cultivation of the plant and when special licenses are applied for. Untaxed drugs are not used.

34. *Evidence of* NIAMAT KHAN BILAN KHAN, *Merchant, Balapur, Akola District.*

1. I was dealing in this trade for a considerable time, and my father did the same from the commencement of the British administration. I have seen the several preparations of the hemp plant being made.

2. I know only that the dry leaves of the plant are called bhang. I have not heard the other names. The definitions are appropriate so far as I know. Round ganja is not prepared in the Berars, but it is imported from Khandesh, and is called *kalidar* ganja. Broken ganja is called *bhangira*.

3. I don't know of any in the Berars.

4. I don't know. It would be called jungli (wild).

7. Yes; for the production of ganja and bhang only, and at the following places:—

Salegam Mookind, Mancooliondi, Baroda, Pamra, Salegam Bazar, Dahigam near Nandusa, Sootala Bujruk and Khurd, Ghatpuri, Mandka, all in Malkapur taluk. Khamgaon, Huvarkheir Akot, Sirla, Sasti, Alegaon, Manki Dihgam, in Balapur taluk.

I can't give the extent.

8. There has been a slight, very slight, decrease within these two years owing to a fall in price. The cultivation, moreover, required much labour.

9. The method of cultivation is similar to that of cotton.

10. Not so restricted.

11. Not that I know of. The seeds are procured from Khandwa.

12. No; not in Berar.

13. Not restricted. I know it is cultivated in Amraoti, Akola, and Buldana districts, but don't know anything about the other districts. The soil called *pandhi* close to village sites is the best. It requires ordinary rainfall of the province, but it is not damaged by excessive rainfall, though it would deteriorate a little in effect by more rain. Probably in Yeotmal district it would not grow. But I am not sure. I say it would not, because the people of that district buy ganja here.

14. Yes; only ganja and bhang all over the province; but I can't give the extent.

15. There is no difference in the methods of preparation from the cultivated and the wild plant, so far as I know. Bhang is formed by the dried leaves that fall off by thrashing the dried ganja, and the remnant left after thrashing is ganja. It is prepared for smoking as follows:—

It is washed and then squeezed dry and mixed with tobacco. The ordinary dose is 6 mashas of ganja to 3 mashas of tobacco, and some even take 6 mashas of tobacco. Ganja is eaten unmixed with any other drug, but some with sugar. It is never drunk in any preparation.

16. Bhang is prepared for drinking only. The preparation is made as follows:—

The leaves are washed clean, and then mixed with the following spices—blackpepper, sugar, poppy seeds, almonds, cardamom, cucumber seeds, and water.

17. Not restricted to any particular class.

18. Does not deteriorate for a year, but does after twelve or fifteen months. It would lose its effect entirely after five or seven years. The only cause that I can think of is time; just like jawari, which deteriorates by time. There is no way to prevent deterioration.

19. Ganja is mostly prepared for smoking, and in two cases out of 100 men would be found to prepare it for eating.

20. In Berar all smoke ganja; none does charas.

21. Only the flat ganja is sold in Berar.

22. None.

24. Bhang is drunk, so far as I know, never eaten.

25. Neither on the increase nor on the decrease.

26.

	For ganja.	For bhang.
(*a*)	50 per cent.	12½ per cen
(*b*)	25 „	12½ „
(*c*)	15 „	37½ „
(*d*)	10 „	37½ „

27. (*a*) and (*c*) Brahmins, Musalmans, Marwaris, Kunbis, Telis, and other low castes of Hindus.

(*b*) and (*d*) Gosains and fakirs and sadhus. Can't give classes of moderate and excessive consumers separately.

28. (*a*) Ganja—
6 mashas . . 1 pice.
Bhang—
5 tolas . . 1 pice.
(*b*) Ganja—
From 8 to 10 tolas 4 annas.
Bhang worth . 2 annas.

29. (*a*) Ganja . . . only tobacco.
Bhang . . jagri and black pepper.

(*b*) *Bhang.*—Saffron, sugar, black pepper, dried rose, poppy seeds, almonds, cucumber seeds, and several other groceries according to taste.

Dhatura is not so used. The admixture of tobacco and pepper is for increasing the narcotic effects; the others are for luxury. Bhang massala is not sold in Berar.

30. The consumers of ganja in solitude would be about 80 per cent. and in company would be 20 per cent., and *vice versâ* with regard to bhang. Yes; it is mainly confined to the male sex and not to any time of life. Children don't consume these drugs.

31. The habit is not easily formed. It is difficult if indulged in for a considerable time. But it could be broken off if attempted in a few days. There is no tendency to develop into the excessive.

32. I don't know of any such custom.

33. Not favourably. I don't think there is any public opinion. It is in disrepute, because it brings on intoxication. I don't know if the plant is worshipped by any sect.

34. Yes; they would get ill or suffer in appetite. This is with regard to all.

35. Not feasible in my opinion. There would be illicit consumption. The prohibition could be enforced by passing a law maintaining a department for the detection of illicit consumption. Yes; the consumers would be discontented, particularly the fakirs and sadhus. I don't think the discontent would lead to political danger. Some would resort to alcoholic stimulants or other drugs, but not all.

36. There is no reason for so thinking.

37. Yes; charas is more intoxicating and stronger than ganja. Both produce intoxication; but the former in a greater degree than the latter.

38. I can't say, as only the flat ganja is consumed in Berar.

39. The smoking of ganja is rather injurious than eating, inasmuch as it produces cough and produces nervous debility, while the eating does not; but very few people simply eat the drug. Bhang is always drunk.

40. Not prescribed for men; but ganja and bhang is given to bullocks for some disorder of the stomach. It makes bullocks go faster. Bhang is taken internally for piles.

41. (*a*) Yes. (*b*) Yes.

(*c*) I don't know about fever; but I have heard from many sadhus that the use of bhang and ganja protects them against diseases in unhealthy tracts, by which I mean places where water is bad.

(*d*) I don't know.

Not restricted to classes. I refer to both moderate habitual as well as occasional.

43. Inoffensive.

44. It is refreshing and produces intoxication. It does not allay hunger but creates appetite. The effect lasts for about two or three hours. There are after effects. Yes; it does produce uneasiness.

45. It does produce physical and mental noxious effects, but not moral. I can't say if it impairs the constitution. It helps digestion and creates appetite. It causes asthma so far as I know, and that too at an advanced age. It does not impair the moral sense or induce habits of laziness or immorality, etc. It deadens the intellect slightly, but does not produce insanity.

47 and 48. It is hereditary amongst fakirs and sadhus, but not amongst others.

49. It produces impotence at an advanced age.

51 to 54. No.

55. Yes; a man not used to these drugs would be completely stupefied.

58. Yes; I am acquainted with the present system, and think it is not properly worked. The registers required to be maintained in the Form F are fictitious. It could be improved by the introduction of the registers in the Form E as prescribed for opium.

---

35. *Evidence of* Lakshman Atmaram Mahajan, *Merchant, Manjrul Pir.*

1. I have had some opportunities of coming in contact with bairagis, gosavis, fakirs, and others who lead the life of pilgrims, and thus of obtaining information from them regarding the matters connected with hemp drugs, in regard to which my answers are framed.

2. The definitions given by Dr. Prain of the different narcotic articles that can be naturally obtained from hemp may be accepted for my province. Bhang is known only by two names, siddhi and bhang, while charas is quite unknown. Here flat ganja and chur are in use.

7. Hemp is cultivated to a slight extent in the three taluks, Malkapur, Khamgaon and Akot for the production of ganja and bhang.

10. The cultivators of hemp form no special class. They are of the same classes as other agricultural cultivators.

11. The plants cultivated for the production of ganja are never raised from the seed of the wild hemp.

12. I have no reason to suppose that the (so-called) wild hemp is anywhere specially cultivated for the production of ganja.

13. The cultivation of hemp for ganja is restricted throughout my province. There are some special conditions of climate, soil, rainfall, etc., which are necessary for the cultivation of hemp for producing ganja. Black soil does not suit it. It is cultivated in the lands adjoining village sites. Rain water alone is not sufficient for hemp; it requires well water also. The cultivation of hemp is possible throughout my province.

14. Ganja and bhang are prepared in the Malkapur, Khamgaon, and Akot taluks, but to a slight extent.

15. Ganja is usually manufactured by being trodden under foot, or by being deposited for a day or two in a ditch, specially prepared, and little earth is thrown over it.

The following are the common methods of preparation of ganja and bhang for smoking, eating and drinking purposes:—

For smoking purposes—

(1) Half a teaspoonful of ganja is first taken on the left palm and little water is poured over it. It is then rubbed with the right thumb for about a quarter of an hour. To this little tobacco is then added.

(2) To make it more strong some add dhatura seeds also.

(3) To make it ordorous a little quantity of cardamom and cinnamon is added before smoking.

For eating purposes—

(1) Ganja is first rubbed in water and is then dried in the shade. Afterwards it is reduced to powder and then a little quantity of mace, saffron, cinnamon and black pepper is added. The whole powder is then mixed with boiled sugar and then eaten. This is called yakuti or majum.

(2) Ganja powder is mixed with ghee and sugar before eating.

For drinking purposes—

(1) Bhang is first steeped in water and then reduced to powder. To this a little quantity of cinnamon, poppy, cardamom, fennel seeds and almond is added, and then to this mixture water or milk is added, again. I have no knowledge of any methods of preparation of ganja or bhang from the wild hemp, and therefore I cannot distinguish between the methods of its preparation from the wild and cultivated hemp. Ganja is prepared from the cultivated female plants by being trodden under foot or by being deposited in a ditch for about two days.

16. Bhang is prepared generally in the houses by the people. It can also be prepared from the hemp plant wherever grown.

17. Agricultural cultivators prepare these hemp drugs.

18. Ganja or bhang does not deteriorate by

keeping. With ordinary care it keeps good for about three years. To prevent deterioration water should never be allowed to leak in.

19. Ganja is used not only for smoking, but it is sometimes eaten also.

20. Bairagis, gosavis, fakirs, and others who lead the life of pilgrims generally smoke ganja. Some Rajputs and few Brahmins also smoke it. In short, about 2 per cent. of the population smoke ganja. The practice of smoking ganja is prevalent throughout the province.

21. Flat ganja is generally in use, but chur is also rarely used when flat ganja is not available.

23. Bhang is used for smoking when ganja is not available. It is generally the pilgrims that make use of bhang for smoking to a slight extent.

24. Those who drink bhang eat it also. The practice of eating and drinking bhang is prevalent throughout the province. Those classes of people that smoke ganja eat and drink bhang also.

25. The use of ganja and bhang may be said to be on the increase. Had it been otherwise, a large quantity of hemp might have been lying idle year after year. But this is not the case. All the hemp that is produced in the province falls short of yearly requirements, and to meet them a large quantity of it is imported also. Again the import trade of hemp is on the increase, and the excise farmers bid higher at the auction every year. This shows that the number of ganja or bhang consumers cannot but be on the increase.

26. The proportion of habitual moderate consumers of ganja to the habitual excessive occasional moderate and occasional excessive consumers of it is as 5, 2, 3, and 1, and in case of bhang it is as 4, 2, 3, and 1.

27. Gosavis, bairagis, and fakirs are habitual moderate and excessive consumers; while Brahmins and Rajputs are occasional moderate and excessive consumers. The lazy and careless use these drugs.

28. The average cost of ganja or bhang per diem to the habitual moderate consumers is one anna, to the excessive consumers four annas.

29. Tobacco is ordinarily mixed with ganja when it is used for smoking, and dhatura exceptionally. The other ingredients are given in my answer to the question No. 15.

30. The consumption of ganja or bhang is practised in company to a slight extent, but in solitude to a considerable extent. It is mainly confined to adult males. It is not usual for children to consume ganja or bhang.

31. As vice has more false charms than virtue, the human nature, being frail, easily falls under the clutches of the former; and as ganja or bhang is a vice, the habit of consuming it is easily formed. There is also a tendency in the case of ganja and bhang for the moderate habit to develop into the excessive.

32. On the Maha Shivaratri day a few people of the higher classes drink bhang. This custom has a religious aspect, but it is not regarded as essential. Though it is temperate at the beginning, it is likely to lead in the long run to the formation of habit.

33. The consumption of ganja and bhang is regarded as a vice, because it blunts the mental faculties, and therefore it is generally in disrepute.

34. To forego the consumption of ganja or bhang is not a serious privation to any class of consumers. It is a luxury to take to its use, and has no beneficial effects on the constitution.

35. It is feasible to prohibit the use of ganja and bhang. These drugs will never be used illicitly. The cultivation of hemp should be at once stopped, as the poppy cultivation is stopped. The prohibition will not cause any serious discontent among the consumers, and will not therefore amount to a political danger. The prohibition will be followed by a recourse to tobacco, but not to alcoholic stimulants.

36. There is no reason to suppose that alcohol is now being substituted for ganja or bhang.

38. Flat ganja is little more strong than "chur" ganja.

39. The smoking of ganja is more injurious than eating or drinking it (ganja is sometimes used as bhang); for to smoke is to inhale the gas that is produced, which seriously affects the breast and produces cough. It affects the brains also, and makes the consumer senseless.

40. In nervous diseases the use of ganja is prescribed by some native doctors. It is also used in cattle diseases.

41. The moderate habitual use of ganja and bhang is beneficial in its effects so far as it gives staying-power under severe exertion or exposure, or alleviates fatigue and acts like a prevention of disease in malarious and unhealthy tracts. In no other way it can be said beneficial.

42. The moderate habitual use of ganja and bhang is not harmless. It impairs the constitution and makes the man lazy and careless. It causes asthma in the long run.

43. Moderate consumers are generally inoffensive to their neighbours.

44. To the habitual consumers the moderate use of ganja and bhang is little refreshing and does not produce intoxication. It neither allays hunger nor creates appetite. These effects last only for a couple of hours. The want of subsequent gratification produces longing and uneasiness, but not so much as in case of other narcotic drugs or alcoholic stimulants.

45. The habitual moderate use of ganja and bhang produces noxious effects (physical, mental and moral). It impairs the constitution; injures the digestion, causes loss of appetite, causes asthma, deadens the intellect, and produces slight insanity, which is of a temporary character. The symptoms of insanity may be re-induced by the use of these drugs after liberation from restraint.

46. In case of excessive habitual consumers the effects referred to in my answer to question No. 45, take place earlier, while in case of habitual moderate consumers they take a longer time.

47. As children generally follow in the footsteps of their parents when they become of age, so the children of the moderate consumer are affected to an imperceptible degree at least.

48. The above remarks hold good in the case of habitual excessive use also.

49. The moderate use of ganja and bhang is practised as an aphrodisiac. The use for this purpose is more injurious than their use as an ordinary narcotic, because in the long run it tends to produce impotency.

50. In case of excessive use the effects are more serious.

53. The excessive indulgence in ganja and bhang incites a man to commit acts of violence.

54. To fortify themselves to commit a premeditated act of violence criminals do not use these drugs.

55. Criminals do sometimes induce their victims to partake ganja or bhang to stupefy them, but no complete stupefaction can be effected without admixture of dhatura seeds.

56. When tobacco is mixed with ganja it modifies the bad effects of the latter, and therefore ganja is never smoked without the admixture of tobacco.

---

36. *Evidence of* KHAJA ABDUL BAKI, *Money-lender, Mehkar, Buldana District.*

3. Ganja is generally cultivated in the Akola district.

4. Though it is known by different names, still it is the produce of one plant.

5. Climate temperate, land well-prepared, rain middling, is required. In other two seasons sufficient well water is required.

6. Cannot give any information regarding growth of wild hemp. As regards cultivated crop, the thinner it is the better.

7. Ganja and bhang are produced in Sutala tahsil, Khamgaon. Extent of cultivation cannot be told, as it depends on the pleasure of the cultivator.

8. The area has decreased recently, because the cultivator has to undergo considerable responsibility regarding the crop.

9. It is sown dense in the month of Ashad. When the plants grow bigger, a plant called bhangra, which grows in the crop, is weeded out, because it spoils the main crop.

10. There is no special class of persons who cultivate hemp. They are of the same classes as other agricultural cultivators.

11. The ganja grown this side is from the seed of cultivated hemp.

12. The male plant, called bhangra, which grows in the new crop, is extirpated.

13. There is no special restriction. Government gives permission on payment of some fees. This is the practice in all districts.

14. Ganja and bhang are prepared in this province, not charas. Ganja and bhang are prepared in almost all places.

15. Ganja means the bud of the hemp plant, bhang the flower of the bud, and charas is the resinous matter on the leaves of the plant. If ganja is to be smoked, it is washed with water and smoked after mixing it with tobacco. Some eat ganja without mixing it with anything else. For drinking the leaves are pounded and mixed with sugar, pepper, milk, etc.

16. Bhang is generally prepared by the people in their houses. It can be prepared from the hemp plant. The same is the case with ganja and charas.

17. There is no restriction in any classes of the the people. But generally the gosais and bairagis make the intoxicating preparations.

18. The three drugs will remain in their original state for considerable number of days. Preparations thereof will not remain for many days. If good care is taken the three drugs will remain for two or three years. They lose their effects by exposure. If care is taken on this point, they may remain possibly for a longer time.

19. Ganja is used for smoking only. Charas is used for smoking and eating also. Both these are used as medicines also, so their use is general.

20. The practice of smoking ganja and charas is in all classes of people. Proportion is not known.

21. Round ganja is more preferred for smoking.

22. Native charas is generally used. Foreign charas is not imported.

23. Bhang is not used for smoking.

24. Poor people generally eat and drink bhang. This practice is prevalent in the persons who live in religious places.

25. The use of ganja, bhang and charas is on the decrease. It is due to education that the people are lately given.

29. Dhatura is mixed with this drug in order to increase intoxication. The roots of jowari and kuner are also mixed for the same reason.

30. The use of these drugs is practised more in company. It is mainly confined to the male sex, young and old. However, females of bairagis and gosais also use them. Children never consume any of these drugs.

31. Yes; the habit is easily formed by company, and once used to it cannot break it off without difficulty.

Yes; there is a tendency for the moderate habit to develop into the excessive.

32. These drugs are used on Shivaratri day and Shimga holidays.

33. The drugs being intoxicating, their use is not considered respectable by the public.

34. If the use of these drugs is stopped it would not do much harm.

39. Smoking ganja is more injurious than eating or drinking, for by smoking the smoke enters in the chest and its filth accumulates in the chest.

40. Native doctors use these drugs in medicines. They are used in the treatment of cattle disease also.

41. The use of the said three drugs would very possibly give staying-power under severe exertion or exposure or alleviate fatigue. If it is used in a country which is cold or where the climate is bad, it will not be possibly beneficial. These drugs will not be beneficial in any other way.

42. Moderate use of these drugs also will not be beneficial for.....(incomplete).

43. Moderate consumers are inoffensive to their neighbours.

44. It produces no immediate effect on habitual consumers. If habitual consumers will not drink they will feel tired, and they will not be able to do their ordinary work without drinking. It has some effect on the consumer. It allays hunger; does not create it. The effect lasts for three or four hours. The after-effects are weakness and laziness.

45. Moderate use of any of these drugs also produce bad effects. It is injurious in every way. It produces bile and asthma; it makes one lazy; it accustoms one to whoremongery for some time; retards intellect; and brings on madness. But it remains for some days, and the use does not deprive the madness; the consumer becomes actually mad.

46. Excessive use of the said drugs will lead to worse effects.

47. The use of the said drugs does not appear to be a hereditary habit. It affects the health of the children of the moderate consumer.

48. If moderate use is injurious, excessive use habitually must be more so.

51. There is no large proportion of bad characters who are habitual moderate consumers of any of these drugs. Moderate consumers are criminals of general or special character.

52. Those who use these in excess are more bad characters and more addicted to crime generally.

53. It cannot be trusted when and what crime will these excessive consumers do. One bairagi murdered a woman at Shendurjana, Mehkar tahsil, while under intoxication, and he was sentenced for it.

55. In order to further their object, criminals induce their victims to partake of any of these drugs to stupefy them. In the case of persons not accustomed to the use of these drugs, complete stupefaction can be used without admixture.

56. The effects of using hemp in moderation and in excess, modified by the admixture of other substances, are different, *i.e.*, bad effects are seen on the health and intellect of those who use them in excess.

66. It is not necessary to have different rates of taxation for different kinds of ganja.

68. In our province license has to be taken out for selling the said drugs.

69. The people are consulted before a new shop is opened, and it is necessary to consult people in such matters. This is now done indirectly; but it is necessary to take direct opinions.

EVIDENCE OF AJMERE-MERWARA WITNESSES.

1. *Evidence of* Mr. G. Bennett, *Abkari Inspector, Ajmere.*

1. Supervision of importation, cultivation and sales.

2. Yes; except that only the flat ganja is imported for sale in the Ajmere-Merwara districts. The drugs are named charas, ganja, bhang and majum. Majum is a sweetmeat composed of sugar and bhang.

4. Yes; bhang ganja tree.

5. I believe the wild hemp plant grows on any cultivated land if it has sufficient supply of water.

6. It grows very dense on the hills about Kussowli.

7. Very little.

(*c*) For use as bhang only.

(*d*) For its fibre.

In the malis' gardens generated spontaneously.

8. There has been a decrease within the last eight years. The drug contractor offers such a low rate for the bhang grown within the district.

9. The seed of the hemp plants is sown in beds about six feet square, on land adjacent to a well or stream, where it can have a good supply of water.

10. In this province I have only known malis and fakirs growing it.

11 and 12. Not known.

13. No restriction to cultivation, but that the produce must be sold to the Government Contractor. The seed germinates during the rainy season.

14. Only bhang. Such plants as are found growing are marked, and the production thereof is sold to the Government Drug Contractor.

15. Ganja is the flower of the plant. Charas is made from juice extracted from the stem of the plant. Bhang is the dry leaf. Charas and ganja are smoked as tobacco in the huka. Bhang is mixed with a little lime and eaten. It is also used for making a cooling drink (sherbet).

16. Under section 7 of the Excise Act, XXII of 1881, no person is allowed to possess more than ¼ seer of bhang. I have not seen either ganja or charas made, but I should think it could be made from the wild hemp plant.

17. Such as fakirs, mahajans and Chaubes.

18. Yes; it will become quite useless in time. Causes of deterioration not known.

19. I have only known it to be used for smoking.

20. Fakirs, mahajans and Chaubes. The proportion is not known to me. In the cities and villages.

21. I have only seen that flat ganja used in the Ajmere-Merwara districts.

22. Foreign. From the Punjab.

23. I have not known bhang used for smoking.

24. Mahajans and Chaubes through the district eat and drink bhang.

25. According to the Drug Contractor's statement, the consumption of drug is on the decrease.

26. Not known.

27. Mahajans and Chaubes. Not known.

29. Dhatura is mixed with charas. I do not know bhang massala.

30. Drugs are used, both private and public, by both sexes throughout life.

31. The habit to become a drug consumer is easily formed. It is very difficult to leave it off. A moderate consumer will in time become excessive.

32. Drugs are used at marriages, festivals, committees and fairs. It is necessary as a respect to take bhang. The quantity taken in these cases, I don't think, would either form a habit or be injurious.

33. With disgust, in respectable society. I believe the respectable public have an aversion to all drugs. I don't know of the hemp plant being worshipped by any class of people.

34. A person who has become an habitual drug consumer is useless if he cannot get his prescribed quantity at the time he is in the habit of taking it.

35. (*a*) It would cause discontent.

(*b*) Yes.

(*c*) It would be unwise to attempt to prohibit the consumption. It may be heavily taxed to decrease the consumption, but I should not recommend any other course to be adhered to.

(*f*) Yes.

36. No, except when drugs cannot be obtained.

37. The persons who smoke either are easily induced to commit any act of violence, but the charas smoker is the most dangerous.

38. All the same.

39. and 40. Don't know.

41. (*b*) Yes; to horses.

Rajas, Thakurs. Occasionally.

42. Bhang, moderately used, is harmless. Bhang made into sherbet is a very cooling drink for the hot season.

43. Yes.

44. Don't know.

45. (*e*) Yes.

51. Yes; and they resort to the consumption of ganja or charas to give them nerve to commit the crime.

54 and 55. Yes.

58. I don't see that there can be any improvement on the present working system.

60. Ganja is not prepared in this district.

61. Charas is not produced in this district.

62. There is no general cultivation within this district.

63 and 64. No.

65. Yes; but I think the taxation should be increased on all drugs.

66. No; the tax should be the same.

67. No.

68. No; the purchaser must take the drug to his own house or some other place to consume it.

69. No; the Collector may authorize a shop to be opened in any part of his Collectorate.

70. Yes; there have been 27 persons prosecuted for importing illicit ganja, bhang, and charas, and majum during the past three years.

2. *Evidence of* Mr. G. W. Gayer, *District Superintendent of Police, Ajmere.*

1. Practically none. I have questioned native experts on the subject.

2. The definitions may be accepted for Ajmere. Flat ganja is called pathar, round ganja is called baluchar, broken ganja is called makoria. The other products go by the names mentioned in the introductory.

3. I hear it grows spontaneously in Malwa, parts of the Deccan, and along the North-Western frontier from Saharanpur westwards, under the Himalayas.

4. Bhang, subji, and buti. Yes.

5. Not qualified to say. It grows well, however, along the Nerbudda river, where the rainfall is plentiful.

6. It is said to be dense.

7. I believe that in all about 40 maunds are cultivated in the Ajmere district by individuals for their own profit.

8. I am told that for the last few years, owing to the scanty rainfall, the amount cultivated has been reduced to the above 40 maunds. When the rainfall is plentiful, probably three times the amount is cultivated.

9. The soil is not carefully prepared, and after sowing, the plant is left to itself.

10. Cultivators of every class cultivate hemp.

11. I believe not.

12. Unable to say.

13. No.

14. Yes; bhang to small extent in one licensed shop situated in Ajmere.

15. Bhang in Ajmere is only prepared from cultivated plant, and for drinking purposes it is mixed with almonds, black pepper, dried rose petals, cucumber seeds and other articles according to fancy.

16. (*a*), (*b*) and (*c*) Yes.

17. By all classes.

18. Yes; all three, it is said, quite lose their effect after two years in spite of all care. I do not know the cause of deterioration, nor do I know what special measures should be taken to prevent deterioration.

19. Only for smoking.

20. Most, if not all, classes of natives smoke both.

21. The round is considered best.

22. Foreign Yarkandi charas is mostly used.

23. I believe not.

24. All classes drink bhang, but it is said Brahmins are most addicted to it. When it is not obtainable in the liquid form, it is eaten in the solid form.

28.	Ganja.	Charas.	Bhang.
(*a*)	1 pice worth.	1 pice worth.	1 pie worth.
(*b*)	4 annas worth.	4 annas worth.	2 annas.

29.	Ganja.	Charas.	Bhang.
(*a*)	Tobacco.	Tobacco.	Almonds and black pepper. Copper is often inserted to increase the intoxicating property of the liquid. Dhatura is also mixed with bhang.
(*b*)	None that I know of.		

30. Males mostly take the drugs; women and children seldom.

31. The habit of consuming these drugs is formed in much the same way as that of tobacco smoking and is as easy (or difficult, as the case may be) to break off.

32. The Holi is a festival during which nearly every person takes bhang. It is not regarded as essential. It is generally temperate. No.

33. When the drug is ready, a little is usually offered to Mahadeo, but otherwise I do not think it comes into the Hindu religion.

34. It would probably be the most serious privation to the gosains and bairagis, as they use the hemp to sustain and nerve them for their arduous duties.

35. No. Yes; by force of arms. Most serious discontent. Yes; very probably.

36. I can't say.

37. Charas is a much more powerful intoxicant than ganja.

38. Only in degree: the round is the most powerful, the flat comes next.

39. The drinking is less injurious, as the preparation in consequence of being mixed with non-intoxicating articles is weaker.

40. Bhang is prescribed for weakness, guinea-worms, piles, etc. Yes; bhang is often prescribed for diseases of cattle.

41.	Ganja.	Charas.	Bhang.
(*a*)	Yes.	Yes.	Yes.
(*b*)	Yes.	Yes.	Yes.
(*c*)	Yes.	Yes.	Yes.
(*d*)	Don't know any other way.		

All classes. I don't know proportion. Both.

42. Ganja, if smoked in moderation, is, I believe, as harmless to most people as tobacco smoking. There are of course constitutions that it affects injuriously.

43. As much so as tobacco smokers or peg drinkers.

44. Refreshing and exhilarating or intoxicating according to constitution. It does not allay hunger; it creates appetite. Four hours. Yes; slackness. Yes; more or less longing and uneasiness.

45. As far as I can find out, the moderate use of any of these drugs is practically harmless. In

every way it is only when mixed with copper or dhatura that it becomes harmful.

46. The habitual excessive use of all these drugs is said to be harmful in every way, as the consumer is always more or less in an intoxicated state.

47 and 48. No.

49. I believe so. I am informed that some prostitutes use it for this purpose. I believe its use for this purpose is not more injurious. It is said not to produce impotence.

50. The same remarks apply.

51. Bad characters are said to be more addicted to all the hemp preparations than other persons, probably in the same way that bad characters are said to be addicted to drink, opium, etc.

53. I don't think it incites to unpremeditated crime of any kind.

54. I have often found that when a crime has been premeditated, ganja and charas is taken to give Dutch courage.

55. Often. I believe not, for instance when a man has taken as much of any of the hemp drugs as it is possible for him to take, although he will become quite unconscious, a sharp shock will restore consciousness immediately.

56. Can't say.

57. I have never heard of either of these preparations being eaten.

63. None whatever.

64. None.

65 and 66. No.

67. None.

68. Yes; no alteration in the system is required.

69. The opening of a shop in a certain locality is, I believe, generally petitioned for, and if thought advisable, sanctioned. The system is reasonable and fair.

70. No.

---

3. *Evidence of* Surgeon-Major D. Ff. Mullen, *Civil Surgeon, Ajmere.*

1. Information has been collected by enquiring from the consumers of the drug.

2. These products are known by the names of bhang, ganja and charas.

3. It grows in the districts of the Punjab and Central India.

4. Bhang, charas and ganja.

5. It grows on cultivated land, where the water-supply is sufficient.

6. Not known.

7. Yes.

(*a*) and (*b*) No.

(*c*) Yes.

Very little in malis' gardens and sadhus' (Hindu fakirs') hamlets.

8. Not known.

9. Seeds of the hemp plants are sown in culturable land.

10. Malis and sadhus cultivate the hemp. No other agriculturists sow the hemp in this district.

11 and 12. Not known.

14. Only bhang in malis' garden and sadhus' *kotries*.

15. Flowers of the plant are called ganja, juice is called charas, and leaves are called bhang. Ganja and charas are used for smoking, and bhang for eating and drinking.

16. Bhang is prepared in houses.

17. Fakirs, Chaube Brahmins, and mahajans.

18. Yes; it will become quite useless in time.

19. Yes; they are used only for smoking.

20. Fakirs and sadhus excessively smoke ganja and charas, and occasionally people of other classes.

21. In this district flat ganja is preferred.

22. Foreign is used. It is imported from the Punjab.

23. No.

24. Fakirs, Chaubes and mahajans use bhang in drinking, and sometimes they eat it by mixing some sugar, etc., called majum.

25, 26, and 27. Not known.

28. From three pies to one anna.

29. Dhatura is mixed with ganja and charas.

30. Not known.

31. Yes.

32. The drugs are excessively used in marriages, festivals, and companies. On these occasions, bhang is specially used.

33 and 34. Not known.

37. Yes; charas smoking is more dangerous than ganja.

38 and 39. Not known.

40. Yes. Bhang is used as a remedy for cattle disease.

41. Yes; the moderate use of bhang is beneficial for—

(*a*) digesting food,

(*b*) alleviating fatigue,

(*c*) preventing disease in unhealthy tracts,

(*d*) removing habitual constipation.

Men of all classes use occasionally when required.

42. Bhang moderately used is thought harmless.

43. Yes.

44. Bhang is refreshing, afterwards produces intoxication in proportion to the quantity taken. It creates appetite.

---

4. *Evidence of* Khan Bahadur Dr. Sheikh Elahi Bux, *Government Pensioner and Honorary Mgistrate, Ajmere.*

1. My answers are based on my long experience of nearly forty years, during which period I have been a Native doctor.

2. Yes. The different names of bhang are siddhi, bhang, subji, patti, buti, thandai, and bijaya. There are no other names of charas, but ganja is termed sulpha as well.

19. Ganja and charas are only used for smoking.

23. Bhang is never smoked. Penniless beggars, when they fail to procure charas and ganja, do sometimes use bhang for smoking, but the intoxication produced is very slight: still it affords a temporary satisfaction. This is rarely done in places where ganja cannot be had.

28. A moderate consumer can drink bhang from 3 mashas to 1 tola at a time. Ganja and charas too can be smoked in similar quantities. Government contractors supply a tola of bhang for two pies. Where there is no contract, it can be had gratis. Government Contractors charge an anna per tola for ganja and three annas per tola for charas. Where there is no contract, ganja can be had at three pies per tola, and charas at six pies per tola. Excessive consumers can drink a quarter seer of bhang at a time, and can smoke five tolas of ganja or charas during the whole day.

29. Moderate consumers mix sonf, kasni, rose flowers, cucumber seeds, coriander, almonds, and black pepper with bhang in summer, and in winter nutmeg, mace, saffron, pepper, almonds, pista, etc. Nobles sometimes add musk and amber to the above. Excessive consumers mix dhatura seeds. Charas and ganja smokers mix raw or prepared tobacco with them. Opium is never mixed with any of these drugs. By mixing the bhang with butter and sugar they prepare majum sometimes to render the intoxication excessive. Dhatura seeds are also mixed, especially in Native States. Nux-vomica, opium, kaneer, cantharides, and betel-nut are never mixed with these drugs in this part of the country. If mixed, they render the mixture better. Gulkand is prepared by mixing bhang, butter, rose flowers and sugar-candy. Yakuti is made by mixing mava (condensed boiled milk), sugar, almonds, pista, raisins, and rose or keora waters. To obtain bhang butter they have to boil bhang leaves with milk; then the milk is turned into curd and churned. The butter thus obtained is used in majum and other preparations.

30. These drugs are sometimes used in loneliness, but generally in company. Nearly 80 per cent. of the consumers use them in company. Males of all ages use them. Such of the females as prostitutes and those that keep drug shops do sometimes use them in the company of male consumers. Other women do sometimes, but rarely drink bhang and eat yakuti or majum on Holi or marriage occasions. But females, except the wives of sadhus and sakins, never smoke ganja or charas. Boys of ten or twelve years of age do sometimes drink bhang on Holi. In dancing parties on Holi and marriage occasions people sometimes distribute majum.

31. The habit of consuming these drugs can easily be formed by using them in company for some time. It can be easily broken off. Those who break off have to suffer pain in the limbs and sometimes in the whole body, and have to yawn constantly for three days. Water flows from the eyes, appetite diminishes, and the person suffers from constipation. After the expiration of the said period the person feels no desire for these drugs. This can be done in the case of both the moderate and excessive consumers. There is no tendency in any of these drugs for the moderate habit to develop into the excessive.

32. On the Holi and Shivaratri festivals the drinking of bhang is looked upon as a religious, and in marriages and entertainments as a social, custom. It is generally temperate and does not lead to form a habit.

36. No.

37. The effects of charas are felt immediately after smoking; that of ganja some five minutes after. Bhang brings on intoxication a quarter of an hour after drinking, and it lasts for more than six hours. The intoxication created by charas lasts an hour, and that of ganja 30 or 40 minutes. Bhang excites appetite; charas and ganja diminish it. Charas and ganja smoking creates warmth. Excessive smoking sometimes brings on senselessness. Bhang is aphrodisiac.

39. Please see reply to question No. 23.

40. Vaids, hakims and native doctors do prescribe the use of these drugs on account of their medicinal properties for dysentery, diarrhœa, cholera, want of sound sleep, hydrophobia, spermatorrhœa, tetanus, neuralgia, delirium, and rheumatic affections. These drugs also remove fatigue. When an elephant suffers from *agunbai*, the symptoms of which are trembling of the body, hasty perspiration, sores in throat and excessive warmth in the body, native doctors prescribe bhang. If not attended to immediately, the elephant dies within three hours. The administration of bhang with other medicines thrice cures the animal. When the elephant becomes *must* and lustful and does not eat, bhang with other medicines proves very effective. A camel can be cured of tetanus by giving him on three alternate days—bhang a quarter seer, sugar one seer, oil one-and-half seer. Bhang is sometimes given to a horse in the case of stomach-ache or for removing fatigue. It is never given to buffaloes, cows, bullocks and goats. Ganja and charas are never prescribed on account of their medicinal properties.

41. The moderate use of bhang is beneficial in its effects (*a*) as a food accessory; (*b*) to alleviate fatigue; (*c*) it is aphrodisiac. Charas and ganja give temporary staying-power under severe exertion or exposure and alleviate fatigue. They serve as febrifuge or preventive of disease in malarious tracts.

42. The moderate use of bhang may be harmless, but not its excessive use.

44. The use of these drugs is not refreshing. The other advantages and disadvantages have already been explained in the other answer. After the intoxication is over the consumer feels dull and lazy, his limbs ache, and he suffers from constipation and want of appetite. The want of subsequent gratification produces a longing and uneasiness.

45. The habitual moderate use of bhang does not produce any noxious effects, physical, mental, or moral, but that of ganja and charas does. Ganja and charas smoking impair the constitution, injure the digestion, and cause loss of appetite, but the moderate use of bhang does not. Ganja and charas smoking impairs the moral sense and induces laziness, but not habits of debauchery. But bhang creates a habit of debauchery. The use of these drugs deadens the intellect and produces insanity. Their effects are exciting and not predisposing cause of insanity. They bring on melancholia and monomania. The insanity is temporary, and the symptoms may be re-induced by use of the drug. Insanes do admit the use of the drug. The moderate use of bhang does afford relief to mental anxiety. A porter, named Karim Bux, of Ajmere, aged 30 years, ran mad by the excessive use of ganja and charas. He returned to the lunatic asylum no less than fifteen or twenty times, and at last died in the asylum. He admitted that, owing to weakened intellect, after liberation from restraint, he could not exercise self-control and keep himself from the further use of the drugs.

46. Excessive consumers of these drugs get very thin. Their lungs do not work well, and they soon

suffer from bronchitis and asthma. They eventually run mad.

47. No.

48. The effect of excessive use of these drugs is not hereditary. The children of excessive consumers do not fall into the habit of using these drugs and have a sound reason.

49. The moderate use of bhang is practised as an aphrodisiac. Prostitutes do use it with that object. Bhang does not bring on impotence.

50. Excessive use of these drugs does render the consumer impotent.

56. This has been replied to in answer to question No. 29.

57. Ganja and charas are never eaten and drunk. When bhang is not procurable, the ganja leaves are sometimes drunk in the Deccan. The intoxication thereby produced is stronger than that of hemp.

In conclusion, as these drugs are very cheap and can be easily procured, people get into the habit of using them excessively. It would therefore be proper to adopt means to render them dearer.

---

5. *Evidence of* ASGHUR ALI KHAN, *Hospital Assistant, Ajmere Dispensary.*

1. When I was at Peshawar on military duty there was a Kahar in the army. He was much habituated to smoking charas and ganja, and also I saw some bhang drinkers in Ajmere. I answer the questions by the aid of medical books.

19. Generally charas and ganja are used only for smoking by the common class of people for indulgence and for medicinal purposes. Ganja and charas are used by the doctors and hakims for anodyne and antispasmodic action in the form of tincture specially, and are also used for removing constipation and headache and others.

23. I think that it is not used for smoking, for I never saw anybody smoking bhang.

29. By the bhang drinkers the following things are mixed into its liquor:—black pepper, cardamom and salt. These things are mixed ordinarily to change its flavour, and exceptionally sugar, milk, rose flower petals and almonds with the ordinary massala to change its colour, taste, and produce a little fragrancy. Sometimes dhatura seeds are put into its liquor to give more intoxication than the simple bhang. Dhatura, opium, betel-nut are also used in the same manner. Ingredients are stated above.

30. The man who uses bhang for medicinal purposes uses it in solitude, and men who use it for indulgence use it in society, and laugh and joke with each other in its intoxication. Such is the case with charas and ganja, and it is mainly confined to the male sex; for I do not know any female using any of these drugs for indulgence except the prostitutes. It is not usual for children to consume any of these drugs.

31. The habit of drinking bhang and smoking charas and ganja is easily formed. To check this bad habit is very difficult; and there is a tendency in the case of any of these drugs for the moderate habit to develop into the excessive; for intoxication of these drugs produces grotesque aspects, and therefore always tends to increase his habit of intoxication.

32. Only bhang is used for religious and social matters in Holi festival by the Hindus in form of dudia. Bhang, as stated in question 29, and bhang lozenges or majum. Under its intoxication they play Holi with each other; but this custom is not considered generally, for many Hindus never drink bhang, even in the Holi festival, and it is generally temperate. It is likely to tend to the formation of the habit.

40. Bhang, charas, and ganja are used by many doctors in the treatment of diseases, and also bhang is used for the remedy of the cattle diseases, as loss of appetite, etc.

41. Moderate use of bhang is beneficial in its effects as a food accessory and digestive, alleviating fatigue, preventing malarious diseases in unhealthy tracts, and removing habitual constipation. In reality smoking of charas and ganja is very harmful in its effects.

In conclusion, in my opinion a very heavy tax should be placed on charas and ganja, so that common persons may not get it easily for indulgence. Charas and ganja should not be sold by the common shopkeepers; but they should be got by the medical halls in the cities and in the towns and tahsilis; so that persons may not get them easily to form their habit of intoxication to impair their healths.

---

6. *Evidence of* ABDUL KAYUM, *Hakim, Ajmere.**

19. Ganja and charas are often used for smoking, and I do not know if they are used in any other way. Sometimes they are used admixtured with majum (confection) for sexual purposes. Their pills mixed with treacle are used as cure for the bite of a mad dog.

23. In this part of the country bhang is not known to be used for smoking.

29. Ingredients of bhang ordinarily are almonds, black pepper and sugarcandy, but sometimes to add to its taste milk is also mixed. In the winter season consumers add some musk and saffron to avoid its evil effects, and in summer kasni and cucumber seed to cause discharge of urine freely, and anise and rose flowers to remove constipation. I do not know of any special preparation as bhang massala. Of course tobacco is mixed with ganja and charas.

30. In this part of the country Hindus are addicted to the consumption of bhang. Females very seldom use it. Hindus use it in solitude as well as in company feastings. Lower class people and fakirs generally use charas. The use of these drugs is not limited to any particular period of one's age. It is not usual for children to consume them.

31. Among Hindus the habit of drinking bhang is easily formed, because on certain occasions it is used amongst them as a custom; consequently they get used to it, and if they do not get it at the appointed time, their limbs begin to pain, and they feel altogether out of sorts; hence it is difficult to

* Translation.

break off. Moderation and excess depend on one's temperament.

32. The consumption of these drugs is due to custom, and is not enjoined by any religion. Hindus generally use bhang on marriage occasions, or when they are in a large company with a view to feast. On such occasions the use of these drugs is considered essential by way of custom, and persons do often use them to an excess. Certainly, owing to these customs, people contract a habit for consumption of these drugs.

36. In this part of the country alcohol is never substituted for bhang. A person used to bhang, charas or ganja will never be satisfied until he gets the particular drug to which he is habituated. To a certain extent opium may be substituted for it.

37. The effects of charas and ganja are very nearly identical; the only difference is that ganja produces its effects sooner than charas. Charas and ganja cause sleepiness and affect lungs. The bhang, having in it two different properties, at first increases appetite and afterwards produces bilious matter.

39. I have never heard that any preparation of the hemp plant is used in smoking, but for drinking or mixing with majum or gulkand (confection). Its oil is used in confections, which is extracted by boiling it with milk. Its excessive use sometimes produces melancholia.

40. In some diseases Hindus are prescribed bhang. It is also used for treatment of cattle-disease.

41. With my experience, I do not know if ganja and charas ever produce beneficial effects; their evil effects are many. No doubt bhang is useful to appetite and digestion. It is also used to ward off fever in special cases. It alleviates fatigue after severe labour of habitual consumers.

42. As far as my experience goes, ganja and charas are injurious to health, whether used moderately or otherwise, because they affect brain and lungs, contrary to bhang, which, if used moderately, is not injurious, but beneficial.

44. Bhang brings on intoxication after some time even to habitual consumers, contrary to ganja and charas, which produce it at once. The bhang intoxication creates appetite; its effects depend on the temperament of the consumers, who feel giddiness and breaking of limbs if they would not get it.

45. Bhang in the beginning produces refreshment, brightness on face, increases hunger and sexual power, but in the end induces laziness, giddiness, causes darkness in vision, mania, melancholia and dropsy. Ganja and charas cause insanity, bronchitis and asthma. These drugs, even in moderate use, produce bronchitis, pain and sleepiness. Debauchees use them for sexual power; their excessive use impairs intellect. In the beginning they produce temporary effects. As soon as intoxication increases, irritation begins, which affects brain, and at last does injury. As long as its effect is temporary, insanity too, which may be caused by it, will be temporary; when it fully affects the brain, insanity caused will take its root. After temporary liberation, people may be addicted to the drugs when re-used.

46. The excessive use of bhang is also injurious, and produces the diseases mentioned above.

47. The moderate use, so long as it has not fully produced its effect on mental powers, does not affect children.

48. The children of those persons who consume these drugs excessively are weak. Their excessive use is a preventive even to beget children.

49. Prostitutes generally use these drugs, especially bhang. It first increases sexual power, but in the end tends to produce impotence. Its excessive use is injurious, but moderate use is beneficial in special cases. Ganja and charas are primarily used for sexual power, to which they are injurious in the end. When bhang is excessively used, it too diminishes sexual power.

50. The evil effects arising from the excessive use of these drugs have been detailed above.

56. The ingredients of bhang, which are ordinarily mixed, have been described above. Their admixture modifies its effects. Charas and ganja without any admixture produce irritation and confusion in brain. In this district consumers do not appear to mix opium and nux-vomica with these drugs. If they do so, it will tend to cause death.

57. As far as my experience goes, I can say that even the moderate use of these drugs is injurious to health; especially the age of ganja and charas consumers shortens, and various diseases, such as asthma, bronchitis, etc., are produced.

Even the moderate use of bhang in the end weakens liver and mental powers.

---

7. *Evidence of* Jati Amar Hansa, *Baid, Ajmere.**

19. Ganja and charas are only used in smoking, and they do not appear to be used for any other purpose. Ganja is used for some medicinal purpose even in this country.

23. Bhang is never used for smoking, or if it be ever used as such, I never saw or heard of it in Marwar and Meywar.

28. The consumers of these drugs might know their average allowance and cost. Some people take bhang in one masha dose, some more than this. At first they use it in small quantity; there is no fixed dose for it. I know nothing of its price; those who sell it know about it. Bhang, ganja and charas are habitually used—some use moderately.

29. Bhang is usually taken mixed with black pepper. Some people mix it with certain ingredients (massala) according to their temperaments. Those who are of malarial temper take with it *ajwayan*, cloves, saffron and almonds, and those who are of bilious temper mix it with cardamom, cucumber seeds, anise, rose flowers, and sugarcandy or sugar, and those of lymphatic temperament use it with cloves, saffron and ginger. The constipated men take it with anise, rose flowers, almonds and black pepper. The bhang drunkard does not mix in it dhatura, nux-vomica, kanair (a kind of Hindustani poisonous tree), opium and betel-nuts. When oil is extracted from bhang, dhatura and kanair root are mixed with it. The opium consumers when they drink bhang do not put opium in it, nor do people mix opium with bhang when they extract oil from it.

30. Some people take this drug secretly, some daily and some in company with their friends and in marriage-feasting parties with their caste-fellows. I do not know to what extent they are used.

*Translation.

They are confined to males only. I have neither seen nor heard females smoking ganja and charas. In some countries females drink bhang or take it in *yakuti* (a kind of confection) and *gulkand* (rose flower confection). It is not usual for children to consume these drugs. In old age some people use bhang with some cathartics.

31. Habit of consuming these drugs is easily formed in company. It is difficult to break it off; and if broken, it brings on diseases, such as loss of appetite, breaking of limbs, indigestion, giddiness, feeling fatigue on work. At first it is taken in little quantity, but some increase it gradually and some not.

32. The consumption of these drugs is not allowed in religious laws (*Dharam Shaster*), but they are used socially or habitually. Bhang is drunk on occasions of marriages and dinner parties, but so doing is not considered to be the custom. Its continual use converts into habit. It is not harmful to habitual drunkards, but in case they leave it, it will be injurious to them.

36. Men addicted to these drugs do not substitute wine for them; and if any one will do so, it will do him some injury and be against his religion as well. I do not know if any one substitutes it. Some use opium for bhang. In some countries wine is drunk for bhang, but it is injurious.

37. The difference between the effects of ganja and charas is that ganja brings on intoxication soon, which lasts shortly, but charas brings it on gradually, which lasts longer. Bhang brings on less intoxication than these two: it produces its effect too late, but it lasts longer. It is less injurious than ganja and charas.

39. Ganja and charas are used only for smoking and not for eating and drinking.

Bhang is taken with *yakuti* and *gulkand* (rose flower confection) or drunk like liquor. Smoking of ganja and charas causes certain diseases, *viz.*, it corrupts brain, produces irritation of throat, mania, bronchitis, asthma.

Confection of bhang is used as a tonic. Consumers of bhang in the first stage feel heat, redness in both eyes, excitement in brain, creation of appetite, and sexual excitement, but in the second stage, when its effect subsides, it causes coldness (which is injurious) and loss of memory.

40. Ganja and charas being injurious are never prescribed by baids. As stated in Yajur Veda Shaster, bhang is prescribed in certain diseases to which it is useful. It is used in the treatment of cattle-disease.

41. Bhang without ganja and charas creates appetite, digests food, increases strength (physique), and is beneficial to cholera, bronchitis, asthma, dysentery, hœmorrhoids, paralysis, loss of blood from uterus, brings on sleep, and generates bilious matter. It is prescribed mixed with other medicines. Yakuti (confection) prepared of bhang alleviates fatigue after severe labour. In cases of intermittent and other fevers, such as continued, quotidian, tertian, etc., it is very useful when given with cathartics.

42. Without ganja and charas bhang is beneficial.

44. The effects of ganja and charas have been stated in answer No. 37. The use of bhang is refreshing. These drugs produce intoxication, create appetite, their effects depend upon the temperament of consumers. When their intoxication subsides it does injury instead of any beneficial effects. Excessive use produces senselessness, coldness, laziness, and is very injurious.

45. Ganja and charas are very injurious, especially to mental powers, and bhang to physical and not mental power. Ganja and charas increase appetite, but are not digestive, while bhang is beneficial to both. Ganja and charas produce bronchitis and asthma, and bhang cures dysentery. These drugs impair moral sense, induce laziness and debauchery. Ganja and charas smoking impairs intellect and causes insanity; excessive use of bhang too produces these effects, but not its moderate use. The mania caused by ganja and charas lasts for ever and that by bhang can be cured. The sufferer of mania caused by the use of ganja and charas is violent, while that of bhang is generally quiet, but seldom violent. I never saw any man suffering from mental anxiety or brain disease who drank bhang for relief from this complaint and became insane. I am of opinion that insanity may tend to indulgence in the use of hemp drugs by persons who are of weak intellect and unsteady mind.

46. Excessive use of any of these drugs is injurious. The consumer becomes mad and dies soon.

47. It cannot be known that the habitual moderate use of any of these drugs is hereditary. It seldom affects the children of moderate consumers.

48. The same as explained in answer No. 47.

49. Use of these drugs creates sexual desire in proportion to the doses taken. Prostitutes too in some places use them as aphrodisiac. Their use for this purpose is more injurious than ordinary. They cause loss of semen, lung and brain diseases, and weakness.

50. The excessive use of any of these drugs is injurious and produces various diseases.

56. The use of these drugs with the admixture of dhatura, kanair (a kind of Hindustani poisonous tree), nux-vomica, opium, and betel-nut, etc., is injurious to moderate consumers and not to those who use it excessively.

57. Ganja and charas, in this country, are neither eaten nor drunk.

In conclusion, in my opinion, ganja and charas are for the use of devotees generally. They use them because these drugs in the first place extinguish desire for sexual intercourse and in the second place they feel with them very little effects of cold in winter season, feel no necessity for clothing, and if at any time they cannot get food they take these drugs only, and do not mind for it. The use of these drugs is prohibited to ordinary people because they do them injury, lose sexual power, cause sterility, impair brain, and produce insanity. Bhang is not so injurious as ganja and charas. On some occasions it is useful, as, when a jeweller drinks it he examines jewels, when jogis (fakirs) use it they devote their minds to the worship of God, and adulterer for adultery. Besides these it cures diseases, such as cough, paralysis, cholera, is digestive and refreshing, increases seminal powers, and produces sleep. Ganja and charas are also prescribed in certain diseases to which they are beneficial.

EVIDENCE OF COORG WITNESSES.

1. *Evidence of* MR. A. BOPPANNA, *Planter, Bepunaad, Green Hills, Coorg.*

1. I have seen wild hemp plants growing, and have also seen people who have used hemp drugs and also seen them smoking ganja. I also heard from others using the hemp drugs.

2. Subji is also called here by the name of "ramrasa."

3. Smokers throw the seeds around their huts, and there they grow wildly.

4. Jaday bhangi and phoo bhangi.

5. They grow in the months of May and June, particularly on burnt soil, and they require 50 to 60 inches of rain. They grow on lands between three to five thousand feet above the level of the sea.

6. Ordinarily dense.

11. They are raised from the seed of the wild hemp.

12. I hear some people cultivate wild hemp, and the male plant is extirpated in such cases.

13. I think it is restricted. People can cultivate after obtaining license in any part of the country if the soil is burnt.

15. The wild female plants, called Jada bhangi, are cut down and are exposed to the sun for a day, then the branches are collected into bundles and are exposed to the sun and dew alternately during the nights and days. This continues for two or three days, then they are preserved after being wrapped up in thick coarse cloths or *kamblis*. The leaves are pounded after being moistened with water, and the juice is squeezed out before the pounded mass is used for smoking.

18. They say ganja does not deteriorate in keeping if well preserved. The cause of deterioration is exposure to the air.

19. Ganja is used only for smoking.

20. Wild tribes, such as Palayars, Kapalas, Karaters, fakirs and bairagis, and Malabar coolies and Muhammadans. Individuals here and there of the Eraver class smoke ganja; but it is quite common among the other classes mentioned by me. In the estates and jungles.

24. I hear low class Muhammadans drink bhangi, called in Canarese "ramras," in the time of Muharram.

25. Use of ganja is, I think, on the increase. Coffee and cardamom estates are now opened, and the large gang of coolies working in them take to ganja smoking.

26. Almost all of moderate consumers.

27. Lazy and idle life, fakir's and bairagi's life, beggarly life, and people working in the cardamom jungle, and some coolies working in the coffee estates, and wild tribes, as a rule, take to ganja smoking.

28. (*a*) Two or three pies.

(*b*) Six pies.

29. (*a*) Tobacco is ordinarily mixed up with ganja for smoking. I hear the bhang massala mixed with ganja is made up of dried Bengal gram, cardamom, ghee, raisin, almond, sugar, or jagri, and also a seed called in Hindustani "tope."

30. Confined to male sex. It is not used by children.

31. Not easily formed. They say it is difficult to break off. There is a tendency of moderate smoking of ganja, developing into the excessive.

33. Use of the drug is looked upon by the public as detrimental to health.

34. No; it would not be a serious privation.

35. It would be feasible to prohibit the use of these drugs. These drugs would be consumed illicitly. The prohibition can be enforced by legislation, to prevent people from cultivating or collecting the wild plants, from possessing and from purchasing or selling any of these drugs. Privation would occasion some discontent among the consumers, but would not be so serious as to amount to any political danger.

41. (*b*) Smokers say moderate use of ganja is beneficial, giving staying-power under severe exertion or exposure or to alleviate fatigue.

(*c*) I think it is preventive of disease in malarious and unhealthy tracts. I refer to moderate habitual use.

42. I think ganja is not beneficial and is not harmless, because I find the smokers weak in body and in intellect. They always appear to be dull and careless.

43. I think they are offensive to their neighbours owing to the smell.

44. It produces intoxication and giddiness. They say it creates appetite, and they eat more food after smoking. Intoxication lasts about two or three hours; they feel restless afterwards. Yes it does; and they try to smoke again.

45. It impairs the constitution. It causes loss of appetite in course of time. It causes dysentery, because several of the smokers complain of it. It does impair the moral sense. It induces laziness. It deadens the intellect. It appears to produce some insanity of a temporary character, because when they are under its influence they appear to talk all sorts of things.

49. I hear the subji or ramrasa is used by prostitutes. I think the use of hemp tends to produce impotence.

51. I think a large portion of bad characters are habitual moderate consumers.

53. I think it does in the case of those who eat and drink bhangi preparation.

62. I think it should be controlled, and it is feasible; method suggested by me in answering question 35.

65. I think taxation of these drugs would be reasonable if the tax is levied, and that a heavy one. It would not only tend to prevent excessive use of these drugs, but will also prevent several poor people from having recourse to it.

66. I think a higher rate of tax should be levied for a more injurious drug.

67. I have no objections to the taxing of the drugs.

68. There are licensed shops in Coorg for the sale of drugs or preparations.

69. No, not to my knowledge. I think local public opinion ought to be considered.

70. I also hear the bhangi is also mixed up in a sweetmeat preparation called "kamier," or "halwa" (in Hindustani) and sold in sweet meat shops.

I also hear that mutton, after it is well boiled, is mixed up with bhangi, condiments, spices, dried cocoanut and *kuskus*, and is roasted in ghee. It is then eaten with bread, particularly by Muhammadans. This preparation is called "bhangi dhallianha."

---

2. *Evidence of* MUKKATI IYAPPA, *Cultivator, Davanagiri, Coorg.*

1. I have seen some people who grow and use hemp in this country.

2. Here people prepare only ganja or bhang, both of which are known by me. Preparation of charas is unknown here. So I had no opportunities of knowing it. Here ganja is more extensively used than bhang. Ganja is known as Jade-bhangi, and bhang is known as Hoovo-bhangi.

3. I know no place where it grows spontaneously.

4. Here it is known only by one name, *viz.*, Bhangi-gida.

5. There are no special conditions regarding the matter referred.

7. (*a*) Yes.
(*b*) No.
(*c*) Yes.
(*d*) No.

To a very small extent—the coolies, such as Yeravas and Kurubs, near their huts.

9. I know very little. The seeds are sown broadcast in rich soil mixed with burnt clay and afterwards transplanted in good rich soil.

10. Some of the low class coolies grow the plant for their own use.

14. (*c*) To a small extent, see answer to question 7. Ganja and bhang are prepared and used by growers.

15. All seeds in ganja or jade-bhangi are first removed. Then it is made wet, and immediately afterwards all water squeezed out with the palms of the hand; and then some dry tobacco leaf (powdered) is generally mixed with it, and then the drug is smoked in *chillums* or *hukas*.

19. Ganja is used only for smoking.

21. Flat ganja or jade-bhangi is preferred to other kinds for smoking.

23. Bhang is smoked only when ganja is not procurable.

27. Mostly aboriginal tribes and other low class labourers.

29. Only tobacco is mixed with ganja at 1 : 2 for smoking.

30. Only adults (men) smoke it.

33. The use of ganja is in disrepute among people not addicted to smoking.

34. I do not consider it to be a serious privation to any class of consumers, as they can take to smoking tobacco until the habit is entirely given up.

35. If the cultivation of hemp is prohibited, the habit can be easily checked. The number addicted to smoke ganja being very small, there will be no danger of any kind to anybody. Only poorer classes who cannot afford to buy alcoholic stimulants smoke ganja, and they are not likely to get into other habits.

47. Some of the children of moderate consumers so easily get into the habit by constant presence before the parent, that it is difficult to allude it to any other cause than hereditary.

EVIDENCE OF BALUCHISTAN WITNESSES.

1. *Evidence of* MAJOR G. GAISFORD, *Deputy Commissioner, Quetta, Baluchistan.*

1. I have been in charge of a district for over four years and have had opportunities of seeing the people of all classes.

2. None of the drugs are grown in the district, except a very small quantity of bhang. Charas and ganja are not prepared here. The definitions of charas and ganja may be accepted. No distinction is made in the district in the different varieties of ganja. The drug used in this district is called "pathar."

3. In the Quetta sub-division of the district only a small quantity is grown.

4. The plant is called bhang.

7. The cultivation of the hemp plant is carried in Ahmed Khanzai, in the Quetta sub-district, to a very inappreciable extent, for use as bhang.

8. There has been no appreciable increase or decrease in the cultivation.

10. Only one or two zamindars cultivate the plant.

11. Never.

12. None.

13. See answer to question 7.

14. None.

18. Bhang, charas and ganja deteriorate after three years.

19. Ganja and charas are only used for smoking.

20. Ganja and charas are chiefly used in this district by the low class Indians residing in Quetta and other bazars. Proportion cannot be ascertained.

21. In this district the ganja called "pathar" is used.

22. Foreign charas is used. It is chiefly imported from Punjab and Afghanistan.

23. Bhang is not used for smoking.

24. Same as answer against question 20.

25. The use of ganja, charas and bhang seems to be on the decrease in this district. The country is becoming more settled, and the low class Indians, who were numerous during war time, have decreased in numbers.

28. (*a*)

Bhang.	Ganja.	Charas.
2 tolas	1 tola	1 tola.
Cost 5 pies	As. 1-6	As. 4.

(*b*)

Bhang.	Ganja.	Charas.
4 tolas	2 tolas	4 tolas.
Cost 9⅜ pies.	As. 3	Re 1.

30. Bhang is used in solitude. Ganja and charas are generally used in company. It is not usual for children to consume these drugs.

31. The habit of consuming bhang is easily formed. It is not difficult to break off this. Charas and ganja develop into the excessive.

32. Among the Hindu sect called Bam Bargis the consumption of bhang is regarded as essential. It is given in very moderate quantity, and is not likely to lead to the formation of the habit. The quantity used is too small to be injurious.

33. The consumption of charas is in disrepute, as it is only used by people of low classes.

37. The effects do not differ.

38. None.

43. Yes.

47. No. The use does not appear to be hereditary.

58. The present excise system of the province is working well.

60. Ganja is not grown in this district.

61. Charas is not produced in this district.

62. The cultivation in the district is so very small that no control seems necessary at present.

63, 64 and 68. None

69. The wishes of the people are not consulted.

2. *Evidence of* KAZI IMAMUDDIN, *Extra Assistant Commissioner, Pishin.*

3. Not of any kind in this sub-division. It grows spontaneously in Kangra and Kulu districts (Punjab province).

7. Not in this sub-division.

18. Charas and bhang are deteriorated by keeping of three years in a wet place, so necessary measures to prevent deterioration are to keep them aside from wet place or wet season.

19. As far as known, ganja and charas are only used for smoking, but it has also been ascertained that habitual consumers do eat charas to complete their intoxication.

20. These drugs are generally used without any distinction of classes among Sindhis and Purbias, as several Thakurs and Brahmins of these countries are seen in this habit. Several residents of Kandahar among Musalmans and Hindus are also in habit of smoking charas.

21. Only chur ganja is used somewhere in this sub-division, and in my opinion it is preferred by smokers.

22. It is imported from British India and Afghanistan territories.

24. Only menial sects of Muhammadan and Hindu nations of the Punjab province eat or drink bhang, as it is considered a shameful event to see a lad of good family of this province and India too indulge in this habit and called a *bhangi*.

25. Certainly in decrease in this sub-division and in other provinces too.

28. Rs. A. P.

(*a*) 0 0 6 . . ¼ tola at four tolas per rupee.

(*b*) 0 2 0 . . ½ do. do.

29. Dhatura is sometimes mixed by excessive consumers for excess of intoxication.

30. Only male sex. Bhang is also given to Muhammadan children at time of their circumcision in place of chloroform.

31. Habit of consuming these drugs is formed in two months if used daily without fail. Tendency is certain in case of any of these drugs for the moderate habit to develop into the excessive.

32. These drugs are strictly prohibited amongst Muhammadans according to their religious laws and regulations.

35. As these drugs are not in common use among the inhabitants of this sub-division, it is feasible and an easy task to prohibit the use of these drugs. Though it will agitate some discontent among the excessive consumers, but discontent of such men cannot amount to a political danger.

36. Somewhere in the sub-division where moderate consumers can spare money, they substitute alcohol for these drugs.

51. There are none out of the original inhabitants of this sub-division who are habitual consumers. There are some men of other countries, as of Punjab and Kandahar, etc., who are moderate habitual consumers, but their character has never been noted under influence of these drugs.

52. None.

53. No case of this nature has come before me for an instant during the past three years in this sub-division.

54. Ditto. But criminals generally fortify themselves in other places or districts to commit a premeditated act of violence or other crimes with use of these drugs.

55. No case of such nature in this sub-division, but criminals do further their designs and induce their victims to partake of these drugs, and complete stupefaction can thus be induced by these drugs without admixture if given to a man who has never taken any of these drugs for intoxication.

---

3. *Evidence of* Babu Kedar Nath, *Head Clerk of the Political Agent, Kalat.*

3. It does not grow spontaneously in the Bolan Pass; nor is it known to grow wild in Baluchistam.

4, 5 and 6. No information available.

7. None in the Bolan Pass, but a little in Kalat territory.

8. *Nil.*

9. Information not available.

10. Hemp is not cultivated in the Bolan. The cultivators in foreign territory are the same as other agricultural cultivators.

11, 12 and 13. There is none to be found.

14. None in the Bolan.

15, 16, 17 and 18. No information available.

19. Only for smoking.

20. Fakirs, also Baluchis smoke ganja.

23. No.

24. Fakirs, also Pathans and Baluchis.

25. Baroo, an old Bania, resident of Sibi, says that men smoke ganja and drink bhang in society, because the drugs are available than they used before.

26, 27 and 28. Particulars not available.

29. Information not available.

30. Consumed more in company than solitude. Children never smoke. Fakirs' women sometimes smoke.

31. (*b*) It is difficult to break off.

(*c*) No.

32, 33, 34, 35 and 36. Information not available.

40. Yes, but very seldom.

41. No information available.

49. Yes, but not in general.

68. Yes.

69. Yes. It is known that workmen will consume drugs; if workmen cannot purchase what they want, they will not come to work.

70. No. Duty is paid on imported drugs. There is no general use of untaxed drugs.

---

4. *Evidence of* Muhammad Yusuf, *Hospital Assistant, New Chaman.*

1. While in 1888 up to 1891 I was in charge of Ferozepore and Hoshiarpur Branch Dispensaries, and here particularly I studied and enquired about the subject, and got some information from consumers and other people.

2. The definitions are accepted in the province (New Chaman), namely, ganja, charas and bhang.

19. Here only charas is used for smoking, and ganja is not used here, not even sold.

23. Bhang is never used here for smoking, and, as far as I know, is not used elsewhere for smoking purposes.

28. (*a*) Bhang ½ chittak for 6 pies, and charas 3 mashas per anna. (*b*) Bhang 4 chittaks of 2 annas, and charas 2 tolas of 8 annas.

29. Tobacco is ordinarily mixed with charas and is smoked; exceptionally is not known. These ingredients are not mixed here with any of them. Sweet almonds, poppy seeds, sugar, and black pepper are mixed often as bhang massala, but here nothing is sold by the shopkeeper for the purpose; it lies only in the will of the consumer.

30. Bhang half or one chittak (1 oz. or 2 oz.) in solitude, and half a seer or one pound in company of eight or ten men. Charas 3 mashas or 45 grains in solitude; sometimes in habitual excessive use it is smoked up 2 tolas or 6 drachms. They say that in Sukkur, Rori, Multan, and Dera Ghazi Khan bhang is used by women as well as by men; and it is usual in Sind for mothers to give somewhat to their children also.

31. The habit of consuming any of them is not easily formed, except they are used for months. It is easy to break off the habit. There is no tendency for the moderate habit to develop into the excessive, yet very rare examples are seen in some foolish persons.

32. No religion, as far as I have known, gives liberty for the use of these drugs.

36. I am not aware of.

37. They say that if bhang be given to the man who is in the habit of smoking charas it would not satisfy him, and so *vice versâ*.

39. Cannot explain properly.

40. As far as I have known, no native doctor uses them for medicinal purposes. On enquiry I have found that none of them is used in cattle-disease.

41. Not beneficial as a food accessory or digestive. Yes, it gives staying-power under severe exertion or exposure, and alleviates fatigue to habitual consumers. It is not known to me as a febrifuge, etc., elsewhere. Not known.

42. The moderate use of any of these is harmless. This explanation is given by those who use them.

44. To habitual consumers any of these drugs gives stimulation. Not refreshing, but produces dryness in system. Yes, it produces intoxication, but does not make one senseless. Yes; it allays hunger of habitual consumers. Yes, it creates appetite. The effect lasts for some hours, but keeps them in satisfaction up to the fixed time of next day. Yes; it produces longing or uneasiness if not taken in time.

45. (*a*) Yes; it produces noxious effects.

(*b*) Yes; it does.

(*c*) By eating in excess.

(*d*) No.

(*e*) Generally it does.

(*f*) Never except in excessive use. Such sort of cases have never been noticed by me up to this time.

46. Yes, it produces noxious effects. Yes, it impairs constitution. Yes; it causes indigestion. It causes bronchitis and asthma. Generally it impairs the senses. Yes; it is believed it produces insanity; it causes madness only, but harmless. Yes; they confess when they return to their senses.

47. Rarely they are hereditary; generally they produce the habit themselves. It is not known that it affects their children.

48. Please see my answer No. 47, the same for this also.

49. Yes; I have been informed that bhang only is used as an aphrodisiac. Yes; it is more injurious than if used ordinarily as a narcotic; because, for aphrodisiac purposes they use to excess, and when intoxicated, they lose their sexual power more. Generally it is used by prostitutes. Yes; it produces impotency.

50. Please see my remark on No. 49.

56. Cannot answer satisfactorily.

57. They are merely used in smoking.

In conclusion, it is my opinion that these things should be discontinued.

---

5. *Evidence of* WARYAM SINGH, *Hospital Assistant, Pishin.*

2. These narcotics are not natural products in this ilaka. These are imported here from other provinces, and called as bhang, charas and ganja. But these are called in the Punjab by the following names:—bhang,—sukha, subji, buti; charas—sulfa; ganja—ganja.

19. For smoking only.

23. No.

28. (*a*) Bhang: 3 tolas, cost 5 pies.
Charas: ½ tola, cost 2 annas.
Ganja: 1 tola, cost 2 annas.

(*b*) Bhang: ¼ seer, cost 2 annas 8 pies.
Charas: 2 tolas, cost 8 annas.
Ganja: 2 tolas, cost 4 annas.

29. (*a*) Sugar or salt, black pepper, cucumber seeds, melon seeds, poppy heads, seeds, milk, and almonds, etc., are used as ingredients of bhang.

(*b*) Dhatura is mixed with the bhang, and charas sometimes is mixed by excessive habitual consumers to complete their intoxication. Habitual consumers also prepare a mixture of bhang, alcohol, and opium. This mixture is called mudra. I do not know bhang massala.

30. Consumption of each three drugs is ordinarily used in company of about 5 men about 4 chittaks bhang, 3 tolas charas, 6 tolas ganja. Most of the consumers of these drugs are men and prostitutes.

31. Habit of consuming these drugs is formed easily. It is difficult to break it off amongst habitual consumers, and as regards to tendency it is a well-known fact that these drugs develop from a moderate into an excessive use in a very little time.

32. No.

36. I do not know.

40. Sometimes bhang and its compounds are used in tetanus, hydrophobia, rheumatism and in uterine diseases.

41. Bhang in its moderate use creates false appetite, but as stomach does not want really feeding to such a quantity as a man eats, therefore its preliminary results are dyspepsia and dyspeptic diarrhœa, etc.

42. I do not think use of these drugs more harmless than any other intoxicating drugs.

44. Immediate effects are refreshing. It produces intoxication. In some cases it allays hunger, and in other creates appetite (false). Habitual consumers feel inclination at their fixed time when the effects are lost, and they feel great uneasiness if they do not get it in the fixed time.

45. It injures the digestion. Yes; it causes dysentery and bronchitis. It induces laziness.

47 and 48. No.

49. Moderate use of these drugs is known amongst consumers aphrodisiac, and their use is more injurious than its use as narcotic, because they shall form easily a habit for aphrodisiac. Its use tends impotency also.

50. Excessive use of these drugs tends total impotency.

56. Effects in moderation refreshing; in excess sedative. Dhatura is sometimes administered to victims by criminals in any of these drugs.

In conclusion, as regards my opinion for use of these drugs, I would say that habitual consumers become totally unfit for bodily exertions, and especially those who are excessive.

6. *Evidence of* MOHAMMAD AKBAR ALI KHAN, *Senior Hospital Assistant, Quetta.*

1. During my service of twenty-two years I have had frequent occasions to come in contact with fakirs, bairagis (mendicants), and sick men who were addicted to the use of these drugs.

2. Yes. Same names as given in this question.

19. For smoking only.

23. Never.

28. (*a*) Ganja ½ tola; price varies at different stations ... ... ½ to 1 anna.
Bhang ½ oz.; price varies at different stations . . ¼ anna.
(*b*) Ganja 3 to 5 tolas; price varies at different stations . 3 to 5 annas.
Bhang 2 to 4 oz.; price varies at different stations . 1 to 2 annas.

29. Ordinary tobacco is added to ganja and charas for smoking.

The following ingredients are usually mixed with bhang, the object being to counteract its unpleasant effects, such as thirst, dryness of throat, etc., and render it palatable:—almond*, black pepper*, aniseed*, kahu* (seeds of a plant), kulfa* (seeds of a plant) coriander seeds*, cucumber seeds*, milk, sugar, water.

30. Extends to female sex also, but to a small extent. A preparation of sweetmeat called majum is sold in the bazar. It contains bhang; it is chiefly used in cases of children, particularly for small boys when they are to be circumcised, and in girls when their ears or nose are to be pierced, the object being to render the little ones fearless to the operation.

31. (*a*) No.

(*b*) and (*c*) Yes.

32. (*a*) The use of bhang is customary amongst the people called Chaubes in Mathura; that of ganja amongst bairagis (mendicants) in Ajudhia and pandes in Gaya. Charas is widely made use of by Pathans in Central India. Kahars excessively indulge in charas smoking.

(*c*) Yes; except in the case of Pathans.

36. No.

37. Ganja is more intoxicating than bhang, but its effects do not last as long as that of bhang. Ganja at the commencement increases appetite, but when long continued it tends to diminish it. Ganja and charas tend to produce bronchitis. Bhang not so.

40. (*a*) Yes, smoking of ganja leaves is prescribed in cases of spasmodic asthma with good result.

(*b*) Used in cases of cattle before operation as prophylactic of tetanus.

41. (*a*) Yes; ganja and bhang, not charas.

(*b*) Yes.

(*c*) Smoking ganja leaves as a preventive or palliative in asthma.

44. Refreshing, intoxicating, and inducing appetite. The effect of charas lasts for about two hours, that of ganja three to four hours, and that of bhang eight to twelve hours.

45. The long and continued use of charas and ganja impairs constitution, and causes partial loss of appetite, and sometimes bronchitis; induces laziness and habit of debauchery.

47 and 48. No.

49. (*a*) and (*b*) Yes.

(*c*) Yes, its primary effect as an aphrodisiac leads to excessive debauchery, whereby generative organs are weakened, resulting into impotence.

56. Ganja and bhang (chiefly majum) are sometimes employed with criminal intent, dhatura being mixed with bhang.

* These form bhang massala, also known as thandai.

---

7. *Evidence of* BHUGWAN DASS, *Khattri, Hospital Assistant, Quetta.*

1. Personal experience.

2. Yes. Charas, ganja and bhang. Majum is a compound of bhang butter and sugar.

19. Ganja and charas especially used only for smoking.

23. Not to my knowledge.

	Rs.	A.	P.
28. (*a*) Bhang ½ chittack, cost .	0	0	6
Charas 3 mashas 45 grains, cost	0	1	0
(*b*) Bhang 4 chittacks, cost .	0	2	0
Charas 1 tola, cost . .	0	4	0

29. Bhang, ganja and charas are used as they are. Not known to me.

30. In solitude to a small extent. Male sex only, but almost all prostitutes and women of ill-fame use it, but until 20 years of age generally.

31. (*a*) and (*b*) Yes.

(*c*) Yes, always; most common in bad company and idleness.

32. No custom, social or religious, allows the use of these drugs, but among low class of people it is customary to keep it ready when there is a punchait, in case anybody may want it. Bhang is generally used by some classes of people on certain festivals, but it is not essential. Yes; injurious in its after-effects. Among fakirs and sadhus it is a necessary article for fixing ideas on divinity.

By the use of the drug the mental faculties of the brain are excited, that the subjects are able to evolve sublime ideas, but under the excessive use of the drug the ideas continue rising to an enormous pitch which we name perversion of ideas or insanity.

36. Yes; the aclohol is very commonly used, the drunkards are daily found by the road sides. The alcohol being used by Europeans, whose example is naturally followed by the natives, and it is a stronger and diffusible drink, much more easy to obtain it than formerly; the use of alcohol is considered no more sin at present; effects of alcohol is to dilate the cutaneous capillaries, therefore mostly used when warmth is required, in preference to hemp preparations, which only affects the sensibility of the cutaneous nerves.

37. Bhang does not affect the nutrition of the body so long as it is taken in a very diluted form. It is an innocent drink in the above form, especial-

ly when it is mixed, as the case is generally, with milk, seeds of cucumber and almonds to wash out the deleterious substance from the body through the urinary and digestive systems. Ganja affects nutrition of the body; the charas more so.

39. Smoking of ganja and charas is less injurious than eating and drinking; in the former case the essential parts of the drug being smoked only; the effect in this form is more rapid.

40. No.

41. No.

(*a*) No.

(*b*) Yes, to some extent.

(*c*) and (*d*) No.

42. It is harmful in every case.

44. (*a*) Refreshing and intoxicating.

(*b*) Yes.

(*c*) Yes; false appetite if any.

(*f*) Two to four hours.

(*g*) and (*h*) Yes.

45. (*a*) Yes, it produces emaciation, weakness and dryness of blood.

(*b*) and (*c*) Yes.

(*d*) Bronchitis and asthma almost common.

(*e*) Becomes impotent, lazy, and nervous weakness.

(*f*) Yes, insanity is almost certain result if the practice is continued long or used excessively. Predisposing cause in cases where there is no hereditary tendency, and exciting cause where it exists. Acute mania, both of temporary and permanent forms. Yes, the symptoms may be re-induced. Congested state of conjunctiva.

No. A near relative of mine who used the charas in moderation at first died of mania of permanent form, in which case all the known treatments were of no avail, and there was no hereditary tendency in the family.

46. It kills the persons much more rapidly by destroying the brain functions and thereby producing mania.

47 and 48. No. Yes, children are small and weakly.

49. No; it produces impotency. Sadhus and fakirs use it for this purpose alone. Prostitutes use it more particularly by its intoxicating effects, and also it is said by them that it keeps the private parts dry.

50. As above. In aggravated form.

56. Not known to me.

57. Not to my knowledge.

In conclusion, ganja and charas produce bronchitis and asthma; and after a long use, insanity. The offsprings are thin and weakly. Their use must be stopped. They are the causes of ruination of many families, more specially often the smoker, the head of the family, becomes lazy and lunatic. It is much less injurious than alcohol and inexpensive. The alcohol first of all to be stopped, which is very excessively used than formerly. The ganja and charas come next to alcohol; besides the smoker of charas and ganja does not commit a crime as a drunkard does; alcohol deranges the whole organs and is very expensive drink. The habitual smoker or eater does not commit crimes, but I hear it is used occasionally by those unaccustomed to it as a strong stimulant.

EVIDENCE OF BURMA WITNESSES.

Evidence of COLONEL H. R. SPEARMAN, *Commissioner, Tenasserim Division.*

1. Thirty-one years' experience as Assistant Commissioner, Deputy Commissioner and Commissioner.

20. Ganja.—Natives of India temporarily in Burma; proportion unknown to me; localities, wherever they may be and can get it.

Charas unknown to me. I have never come across a Burman, Shan, or Karen consumer of either ganja or charas.

25. I have not any reason to think it increasing or decreasing. Any increase there may be is due to the large influx of natives of India (troops, military police, and followers) since the annexation of Upper Burma.

33. By Burmans and persons of cognate races as highly disgraceful. Due to Buddhism and the training of centuries.

34. No. Many natives of India, I think, give it up, because they cannot get ganja here without great difficulty, risk and cost.

35. The mere possession is, and has been for years, prohibited.

58. Might perhaps (?) be improved.

59. Possession is now punishable with fine or with imprisonment. It should be punishable with rigorous imprisonment only. As a Magistrate, I found imprisonment a much better deterrent than fine, and in awarding it had the whole Burman population with me.

62. Is, and should, continue to be, absolutely prohibited. The annual classification of crops for revenue purposes is a sufficient means of control.

64. No. Import is, and should remain, absolutely prohibited.

70. No. No duty. No general use.

Oral evidence.

Question 1.—I have been thirty-two years in Burma—in all parts of Lower Burma without exception. I was fifteen months in Bhamo in 1871-72, but know nothing of Upper Burma.

Question 20.—I have never been in the Shan country, and speak only of what I have seen in Lower Burma.

Question 25.—I personally know nothing of any extensive smuggling, not more extensive than it used to be. One hears of it through the Post Office. Smuggling at ports through the Customs House would not come to my knowledge except when the Excise Officer had to interfere: this is rare. Smuggling through the post office would come to my knowledge through the Excise Officer's diaries. Only two cases have (so far as my memory serves me) come to my knowledge during the last two years while I have held charge of the Tenasserim Division. Before that I was in the Irrawaddy Division. I have no particular recollection of smuggling there. It has to be remembered that the greater portion of the smuggling from the sea would come through Rangoon; and I have no personal knowledge of that, though I used to hear a great deal about it in newspapers and in casual statements which I had neither means nor desire of verifying. I have no confidence that I have ascertained the facts about smuggling. I do not mean at all to assert that there is little smuggling, but simply that I personally have no facts.

Since the Government prohibited the drug it has done nothing special to enforce the prohibition. It has left it to its officers to carry out the orders issued. It has left it to its officers to arrest the offenders and its magistrates to punish them. I have no recollection of any orders of any kind being issued by Government. I have no recollection of any censures or strictures regarding ganja in Excise Reports. The stern prohibition issued by Sir Ashley Eden still remains in force, and I understand Government considers it sufficient. In my opinion it is the most that can be done. I do not see that anything else can be done, though it is not sufficient to absolutely prevent smuggling. I consider that there is no need of increase in zeal in enforcing this prohibition in my Division. If I heard casually even of smuggling there, I should have it carefully inquired into. The annexation of Upper Burma has not had any appreciable effect in increasing the rate of immigration of natives of India into Tenasserim. The normal rate has continued. There have also been some grants of land given to natives of India in the north of my Division, and this has perhaps slightly increased immigration. Natives of India work better than Burmans. But the Indian population is not very markedly greater than twenty years ago in proportion to the general increase of population in my Division. If anything, immigration will increase. There is no ground to believe that it will cease.

Question 34.—I cannot say that the prohibition has succeeded as regards the natives of India, as I cannot say that there is no ganja in the country. The consumption of ganja would, however, I believe, have been very much larger among them if there had been no prohibition. I can answer for Tenasserim and Irrawaddy. My statement that many natives of India give up the drug owing to the difficulty, risk and cost of getting it is based on conversations with respectable natives of India. I believe, however, that ganja is a marketable commodity though expensive, and that any native (Burman or any one else) who wishes it could get it if he paid the price. This, no doubt, gives Burmans a chance of becoming consumers. I am exceedingly anxious to prevent as much as possible Burmans from becoming consumers. They cannot control passion. They exceed in opium or liquor as well as in revenge; and would, I believe, exceed in ganja if they took it. At present they only use it for elephants, etc., and rarely put leaves in curry I believe. I consider the present opium license system a bad one, and I should consider such a measure in regard to ganja equally unadvisable. There is no chance of checking opium by the present system. It seems to me that the proper measure would be to have licensed shops

and only license consumption there, except in the case of respectable Chinamen, who might be allowed to take out licenses at the discretion of the Deputy Commissioner. That would have checked consumption by Burmans. I would not recommend such a system in regard to ganja, because there is no established use of ganja. Opium is lawfully sold in the country. Besides that, opium is used by Burmans already; ganja is not. I would stop ganja by punishing possession with rigorous imprisonment, and also by fining ships in which it is found without owner. I would leave as little as possible to the discretion of administering officers. Punishment should fall with absolute certainty and in fixed degree. Fine is useless, because if you fine lightly you do not punish the man, while a heavy fine is so difficult to realize that the higher judicial officers object to them, and imprisonment is better in every way. I should regard the matter purely from the Burman point of view, without regarding in the least the discomfort, or hardship, or suffering of natives of India. If they choose to come to this country they must accept the conditions there.

The improvement alluded to in my written answer No. 58 is that indicated in answer No. 59, *viz.*, this increased rigour.

In regard to opium we have found that some Burmans would not register at all and that others registered eagerly to enable them really to sell to other non-registered consumers. I regard the registering as utterly untrustworthy. The Burmans use alcohol. The use is extending, both the moderate and excessive use. The best Burmans take no intoxicant of any kind.

I have never heard of the use of ganja by the Siâmese. The Shans in Mergui district are almost invariably Siamese. I know nothing of cultivation by them in that district.

Letter from COLONEL SPEARMAN *appended to his evidence.*

I have the honour to invite the attention of the Hemp Drugs Commission to my evidence given on the 6th instant, and to request that so much of this evidence as relates to ganja being "marketable" may be considered and dealt with in the light of the following remarks.

2. I accepted the word "marketable," which was not mine, without claiming, as perhaps I ought to have claimed, a definition of the meaning the Commission put on the word. I accepted it, not in the last sense given in Webster's Dictionary, but in one of the others, *viz.*, "saleable." Those who want to buy can buy it *if it is to be got*. I meant it to be understood that in my opinion, as founded in what I believe to be legitimate inferences from such facts as have come under my own observation and as I have, as a matter of duty or otherwise, succeeded in verifying, persons not known or suspected to be in the public service or employed as spies or informers can, with risk to themselves, greater or less, according to surrounding facts and circumstances, at a cost which can be measured on each occasion only, and with a delay which could only be similarly measured, obtain ganja.

3. Briefly, but fully and accurately stated, my belief is that in my Division, and I decline to speak for any other, ganja is "marketable" as smuggled tobacco is in England.

---

2. *Evidence of* LIEUTENANT-COLONEL C. B. COOKE, *Commissioner of Pegu.*

1. The people of Burma not being addicted to the use of hemp drugs, my opportunities of obtaining information have been few.

2. "Sè chauk" or "dried medicine" is the ordinary name applied to ganja (flat or round) by the Burmese. It is also known as "bhin."

3. It is said to grow spontaneously in parts of Upper Burma.

7. Its cultivation is forbidden by law.

35. The use of the drug is prohibited in this province. The prohibition is intended to protect the indigenous population from acquiring a habit which is by some persons held to be a cause of insanity.

The alien population of Burma at the time that the prohibition was ordered was insignificant in numbers; in the twenty years since the prohibition was ordered that population has probably increased 500 fold, and the difficulties of enforcing the prohibition have also increased; but still, I think, the prohibition should not be annulled.

36. No.

58. Yes; I think it should be left unchanged.

68. None are licensed.

69. The wishes of the people are consulted usually before any new excise shop is licensed.

Oral Evidence.

Question 1.—It is more than 25 years since I first came to Burma, but I passed seven years out of this period in Central India. I was Assistant Secretary to Sir Ashley Eden when the report was made, in which the prohibition of the hemp drug was initiated. I have passed the greater part of my Burma service in Upper Burma, either as Political Officer at Bhamo before the annexation, or as Deputy Commissioner and Commissioner. Since that time I have never served in the Arakan Division, the circumstances of which are very different from those of the rest of Burma, the natives of the country being regarded by the true Burmese as foreigners.

Question 3.—I have never known the drug to be used as a narcotic by the Burmans. I am aware that the plant is said to be grown in Burma, and I have heard that the leaves are occasionally used in flavouring curries, but I have not heard that the plant is cultivated in Burma, so as to make the resin accumulate in the flower head. I have had no experience of the Shans in their own States, so I cannot confirm or contradict the statements made by the ex-Sawbwa of Nyangywe, who probably knew what went on in his own State.

I have seen the plant growing spontaneously outside some three villages in Upper Burma among the rubbish heaps, but it was a mere weed not grown for any purpose. The plant was pointed out to me, or I should not have known it. This experience and what I have heard forms the foundation of my written answer that the plant grows spontaneously in Upper Burma. I heard about the existence of this spontaneous growth soon after the war. I have also heard of the cultivation for the leaves, but none for the

fibre, the leaves being used both in flavouring dishes, as I have stated above, and also for medicinal purposes. It is used, I know, for treating elephants, and I believe this practice was brought from India. The Burmese name of the plant is bhin-bin.

Question 35.—Most of us officers in Burma know flat and round ganja, but charas and bhang are not known, and these substances might probably be imported without chance of detection. There is no doubt that ganja is now being imported in larger quantity than it was at the time of the prohibition. There are now more Indians in Burma, and therefore the drug is more in demand, and finds a ready sale at a high price. I think the drug sells in Burma for half its weight of silver. I think I may say, that it can always be obtained at this price, but I have no facts to support the idea. I do not think the people of India who are addicted to the drug would go without it; but I cannot speak with any certainty, because I am not brought much into contact with natives of India. Prosecutions for smuggling are reported in the monthly returns furnished by Magistrates subordinate to me. I should say that on the average there was as much as one case in every Magistrate's court in every month. I cannot speak for Rangoon, as the magisterial returns from the town do not come to me. The amounts with which these cases are concerned are generally small. The prosecutions are generally for *possession* of the drug and not for smuggling. The offenders are generally Chittagonians or Burmans, the latter of whom I believe are only go-betweens in the trade, for I do not hear of their being consumers of the drug. My Division does not march with the Shan States or Siam. I had to do with the Siam border when I was Commissioner of Tenasserim, but I do not remember to have heard of a single case of smuggling over that frontier.

When I spoke above of the possibility of getting ganja in the market, I used ganja in the general sense as applying to the narcotic in any form, including charas and bhang. I do not think that ganja, using the word to denote the long dried-up sticks with bunches of the resinous parts of the plant attached, can be so easily procured. Undoubtedly it was smuggled, I believe very largely, through the post office during the three years after our occupation of Mandalay. The smell of the drug was concealed by putting up dried fish or dried meat in the package. Two parcels of this kind were sent to me by the Postmaster of Mandalay in 1888. The postmasters send parcels to the District Magistrate when they have reason to suspect smuggling. I don't know of any orders on this subject, but there may be orders in the Postal Department. We reward the postal peons who bring the parcels, and I believe the rewards are distributed by the postal authorities. In the cases I dealt with, the addressee was present, and the parcel was opened before him. These parcels were addressed to Madrasis, and, I believe, they came from the Madras Presidency. The magisterial returns would not show the details connected with the detection of the drugs, beyond the weight of the drug discovered.

I remember that when recommending the prohibition of the hemp drug, Sir Ashley Eden remarked to me that it was too late to prohibit opium in the same way, though he would have wished to do so, because shops had been opened and the use established for seventeen years. Since the prohibition was established, no strong measures have been taken to enforce it; but in cases of detection punishment has been rigorous. I think the large number of prosecutions and the inconvenience involved in searches do undoubtedly require strong justification. I think they cannot be regarded as having succeeded in respect of the natives of India. They were much more successful during the first ten years than they have been since the large influx of natives of India. The prime object of these measures, however, was in the interest of the Burmans, and it has been fully realised. If after some years' experience the licensing system in regard to opium was found to succeed, I should withdraw my objection to the adoption of a similar system for ganja.

Question 45.—I was Political Officer in Bhamo from 1874 to 1877. I know something of the practice of the native Town Magistrate of Mandalay under Burmese rules. An insane would not be taken notice of as long as he was harmless. If violent, he would be dealt with summarily, and locked up in jail.

Question 59.—I do not see how the prohibition is to be more strictly enforced than at present, because, I understand, the plant grows spontaneously in many places in Upper Burma, and always contains the narcotic properties though it may not be in the form of true ganja. On the other hand, I could not recommend any relaxation of the prohibition, because the obstacles the Government has placed in the way of the Burmans procuring opium would be likely to make them turn to the hemp drug if it were legally procurable. The obstacles referred to consist in the prohibition to supply opium to any Burman who is not a registered consumer. I do not think a similar measure in regard to ganja would be practicable any more than the measure is likely to be in regard to opium, for an unregistered consumer will be able to get his supply through a native of India, and in the same way a registered consumer will be able to get more than his legal allowance. Even if ganja could not be obtained from the plant as grown in Burma, I should still be averse from licensing its sale, because I consider that the licensing system raises up a class whose interest it is to spread consumption. I think that any licensing system would be far less effectual as regards the Burmese than the present prohibition.

---

3. *Evidence of* Mr. J. E. Bridges, *Commissioner of the Eastern Division.*

With reference to the printed questions which have been sent to me, I have the honour to inform you that as ganja and preparations of ganja are forbidden in Burma, the only personal knowledge I have of ganja has been derived from cases which have come before me as a Magistrate in Lower Burma. The accused in ganja cases were always natives of India, and the drug was produced in the dried state. In Upper Burma, I have noticed in the diaries of Excise Officers that information is frequently received of the cultivation of ganja, and that several seizures of ganja have been made. In a recent case in the Kyaukse district a policeman from Ingon was convicted of cultivating ganja and the Sergeant of the police station of abetting the offence.

As my personal knowledge of the matter is meagre, I have not answered the printed questions, but

I have made inquiries from the township and other officers whom I have recently met, and I submit their statements.

These statements show that ganja is well known in Upper Burma as an intoxicant and an aphrodisiac and an antidote for fever, that it was used by a compatatively small number of people, that it is known by Burmese doctors as a cure for dysentery and diarrhœa, and that it is widely used in the treatment of diseases of elephants.

I have recently had an opportunity of meeting some of the ex-Ministers and other officials in Mandalay. I have not, however, taken their statements as they do not belong to the Eastern Division. The Mandalay Myowun informed me that the use of ganja was well-known in Upper Burma, and that before the reign of King Mindon it was widely used, the Ministers at Court mixing it with the tobacco of their cheroots. It was also used as an aphrodisiac at the court, sometimes mixed with other ingredients and sometimes taken pure in small pills. In King Mindon's time the use of ganja was prohibited together with other intoxicants (bein-bin-ehawza-ayet), but the prohibition was not strictly enforced as regards ganja. The ex-Nyaungywe Saw Maung informed me that 30 per cent. of the Danus (residents of the Myelat or intermediate States between Burma and the Shan States) and 20 per cent. of the Shans smoke ganja. He stated that the drug was also widely used by Kachins, who use the fibre to make cloth. The plant is usually cultivated and does not grow wild, and incisions are made below the flower from which juice exudes.

I was also informed that ganja is largely used by persons exposed to damp, such as fishermen. According to a Burmese saying ganja inspires fear, liquor gives courage, and opium produces politeness.

This is all the information I have been able to elicit in the limited time at my disposal, as the letter of the Financial Commissioner forwarding the printed questions is marked urgent. The information obtained appears to show that a great deal of information could be obtained on the subject by further inquiry, especially in the Myelat and the Shan States.

Maung Kye, Myook of Yamethin, states:—In the time of Burmese, there were about 20 persons in the whole of Yamethin who smoked ganja. These people belonged to the lowest class, and were those without any occupation. The habit of smoking ganja is considered as bad as smoking opium. I have never seen any one who indulged in this drug stout and strong. Ganja plants used to be sown in the town by those who used it. It was no offence to sow ganja. Ganja was said to be intoxicating. I do not know how it was sown and prepared.

Maung Lu Maung, Thugyi of Yindaw (Yamethin district), states:—

There were in Burmese times five persons in Yindaw who grew ganja plants, for their own use. They belonged to the lowest class. Respectable people never indulged in the use of this drug. The habit of ganja smoking was imported from the Shan States, where ganja was and is still cultivated largely. Ganja is said to keep off cold and fever. It is still used medicinally by some suffering from long-standing dysentery and diarrhœa. The habit of smoking ganja is not so bad as opium, as it does not affect the constitution as much as the latter. I do not know how ganja is planted and prepared.

Maung Gyi, Myook of Lew (Yamethin district), states:—

Ganja smoking and eating were habitually prohibited by the late Burmese Government, but sowing was not. There were a few persons in my township who grew ganja to a small extent, say from ten to twenty plants. It was only Karens who cultivated large quantities of ganja for sale to timber traders (Thitgaungs), who use it as medicine for elephants. Every one possessing elephants is bound to keep ganja. Ganja is also used for curing dysentery and diarrhœa. It is then mixed with sugar or jagri in equal proportion. There are two kinds of ganja, one is black and the other is white. I do not know the difference in the qualities of these two kinds of ganja. It is also used as an aphrodisiac, being mixed with birds' nests, saffron, butter, plaintains, sugar, etc. Those who took to the habit of smoking ganja belonged to the lowest class. There were about ten persons in my township who indulged in the use of this drug. I was told that the flower tops have more flavour and strength than the leaves for smoking purposes. Ganja flower tops and leaves are first dried and made into small particles by rubbing them between the hands. The particles are sometimes put in a pipe or in a cigar for smoking.

Maung Pu Le, Myook of Paunglaung (Yamethin district), states as above.

Maung Tha Bu, Myook of Eingaing (Kyaukse district), states:—

I belong to Lower Burma. I do not know about ganja in Upper Burma in the time of the Burmese. In Lower Burma I have seen several low-bred persons indulging in the smoking of ganja.

Maung Gyi, Head Constable of Wundwin (Meiktila district), states:—

I was Myingaung (cavalry officer) of Sameikshe in the time of the Burmese. Whenever I had occasion to go with the troops to the Shan States, I saw them smoking ganja. I was told that it was an antidote for fever. I also saw some putting a little in their curry. It was said to be very appetizing. Ganja plants were cultivated extensively in almost every Shan village for importation to the plains for sale to elephant owners. Ganja is largely used in medicine for elephants. In the place where I was Myingaung, I think there was about one person in a thousand who smoked ganja.

Maung Lat, Myook of Wundwin (Meiktila district), states:—

In the time of the Burmese I was Myothugyi of Pindale. There were about 50 persons who grew ganja for smoking. They all belonged to the low class. Ganja I am told keeps away cold and fever. If mixed a little in fowl curry it makes the curry savoury and appetizing.

Maung Khanbu Thugyi of Wundwin (Meiktila district), states:—

There were no one who planted ganja or smoked it in Wundwin in the time of the Burmese.

Maung Po Sa, Subdivisional Officer of Yamethin, states:—

Ganja is used by very few Burmans. Those who use it belong to the lowest class. It is intoxicating and makes one timid. Constant use of ganja makes one insane. I have seen two who lost their heads by the use of it for about three years. About fifteen years ago, when I was in school, I accompanied a picnic party composed of school-boys. We prepared our own food, some one for fun and to ascertain the effects of ganja, put a little ganja in the fowl curry while it was being cooked. I did

no know it nor did many others. When we took our food every one noticed that the fowl curry was exceptionally tasty. They took it heartily. I felt a peculiar smell in the curry, but also ate it with the others. Of those who took it, I and several others were not affected by it in the least. Two, I remember, were intoxicated and showed signs of timidity, uttering most humiliating words. I have seen children suffering from dysentery cured by rubbing ganja pounded and mixed in water on the navel.

Oral evidence.

Question 1.—I have passed the whole of my service, seventeen years, in Burma. During my first two years I was in Shwegyin as Assistant Commissioner and afterwards Subdivisional Officer. Then I went to Bassein, which is in the Irrawaddy Division, as Assistant Commissioner for six months. Then I was engaged on settlement in Bassein and the lower part of the Henzada district for five years. I was then Revenue Secretary for two years, and then became Deputy Commissioner of Mandalay. For six months I was Chief Secretary, and after that Commissioner, which post I have now held for a little more than three years.

I can give no further information about the growth and cultivation of the hemp plant than is contained in my paper. I have never seen the plant growing. I have often seen the drug produced in court in connection with prosecutions. The drug appeared to consist of dry leaves and was called ganja. I know that the drug was prohibited under the Burmese kings together with four other intoxicants—opium, spirits, and two kinds of rice beer. But only as regards opium was the prohibition effectual, and practically no notice was taken of the growing of the hemp plant. It was grown at Meiktila. Two or three months ago a Burman was brought up for growing the plants, and he defended himself by saying he had been accustomed to it all his life and could not do without it. He was fined Rs. 5. The drug is smoked in cheroots with tobacco and cooked with curries. A Burman does not inhale the smoke in smoking tobacco. The Shans use a wooden pipe for smoking tobacco.

I never heard ganja mentioned in Lower Burma as being smoked by Burmans. Since coming to Upper Burma I have heard of the practice. Our Hindustani servants used to use it in Lower Burma. In the Danu country, lying between Burma and the Shan States proper, it is said that every man grows a few plants for his own consumption. Part of the Danu country is British, and some of the villages are in the Shan States. British officers visit the Danu country very little, and the prohibition has not been enforced there. I have heard that male plants are eradicated in the cultivation, one such plant only being allowed to grow. The use of the drug would seem to be more common in the Danu country than among the Shans, and still more common among the Kachins, who are said to cultivate the plant in fields. The fibre they use to make cloths is said to be the produce of the same plant. When grown for the drug in the Kachin country the upper part of the plant is said to be shielded with a *chatty*, and the male plant is said to be exterminated, leaving only one such plant standing. Cases have occurred in which the Danu people have been caught smuggling ganja into Burma. I don't think the smuggling is general, because the drug is not much used down here.

In the Eastern Division I have four Superintendents of Excise, each with two sergeants, to put down opium smuggling from the Shan States. The establishment was working till last year in the Mandalay district, where it was found to be useless. It was therefore transferred to my Division on trial. I believe a small establishment still remains in Mandalay. I know of no other excise establishment in Upper or Lower Burma, except the Customs Officers at the sea-ports. These establishments as well as the regular police initiate prosecutions. The prosecutions for smuggling and illicit growing of ganja are not numerous. They have increased in the Eastern Division since the employment of the excise establishment mentioned above. There were about nine or ten cases last year as well as I remember. Where the ordinary police is the only agency for detecting such cases it is probable that much less is done towards checking the growth of the plants and use of the drug than in the districts named. The prosecutions come to my notice through the diaries of the Excise Officers and the monthly returns of the Magistrates.

The Burmans generally approve of the prohibition of drugs. As a people they disapprove the use of the drug. I cannot say what is the feeling of the Hindus. I do not think the prohibition has had any effect in my Division; those who used to consume the drug still do so. The Burmans never used it to any great extent, and they do not now. I think the drug can always be got if it is wanted. Every native of India manages to get it. When enquiry was made on receipt of the Commission's questions, specimens of the drugs were without difficulty procured from a sweeper. I was told that my *mali* had grown it in my own garden, though it had disappeared when I went to look for it owing to a flood. Most European officers are unable to recognize the plant, though the Burmans generally are acquainted with it.

I think the prohibition should be maintained. If it were withdrawn the Burmans, who are a weak people, would be more likely to take to the drug. If the prohibition were more strictly enforced there would be difficulty in getting the drug for medicinal purposes, such as the treatment of elephants, and this would be considered a hardship by the owners of elephants and would require special provision. The drug is said to be the sole remedy for most diseases of elephants.

I have no information about the use of dhatura with ganja. In the departmental return of military police punishments from the Meiktila district within the last two or three months I saw that four men had been punished for using dhatura. When I asked the battalion commandant about it he told me the men had used dhatura because they were unable to procure opium. He told me that the men had gone mad for a day from using it. I don't remember having noticed a case of dhatura having been used because ganja was not to be obtained. I don't remember a policeman having ever been punished for using ganja. Returns of punishments of military and civil police were not, however, sent to the Commissioner till the last three or four months.

The only forms of smuggling ganja of which I have any knowledge are those described above in the eastern frontier and smuggling through the post office. A Havildar of the military police was recently punished for smuggling in the latter way. As a Magistrate at Bassein I used to have to try cases of ganja seized on boardship. In Upper Burma the growth of the plant in a small way by consumers for their own use is general, but the consumers are few. The consumer, therefore, finds no difficulty in getting his supply. Government.

have never drawn special attention to the prohibition with a view to enforcing it strictly. Their attitude has been practically that of the Burmese Government, *viz.*, formal prohibition without strict enforcement. I believe, however, that the drug is grown and used to a less extent now than it was under the Burmese kings, and I think the prohibition does check the spread of the habit among the Burmans. I do not think the Danu people are morally, with respect to intoxicants, a stronger people than the Burmans, but they are said to require the drug owing to their damp climate.

---

4. *Evidence of* Major B.A. N. Parrott, *Officiating Commissioner, Southern Division.*

1. I have been in Burma nearly twenty-five years, and all I know about ganja is from cases brought before me in Court.

2. I only know ganja in the forms of sticks and leaves. It is called in Burmese "sè chauk."

3. I know of no districts in Burma where it grows spontaneously.

4. I only know it by the name "sè chauk."

5. I cannot say. It would grow well, I think, over most part of Burma. I have seen plants in Thayetmyo and Kyaukse districts.

6. Scattered, I think.

7. I saw a little in Kyaukse district in 1888-89, I think. I think it was grown for production of ganja.

8. I cannot say.

9. I do not know.

10. In the only two cases I can remember, one was an ordinary cultivator; but, if I remember right, half native. In the other, it was a native of India.

11. I do not know.

12. I do not know. I think not.

13. Ganja is not allowed in Burma.

14. I have only seen ganja in the form of twigs and leaves. It is used, I understand, for mixing with sweetmeats and cheroots, and is used only by natives of India, sepoys, and prostitutes.

15. I cannot say.

16. I do not know.

17. I cannot say. Natives of India only as far as I know.

18. I do not know.

19. I cannot say.

20. Only natives of India, sepoys, and prostitutes.

21, 22 and 23. I do not know.

24. Cannot say.

25. Decrease I should say, for I have had very few cases before me within the past few years.

26. Cannot say.

27. Please see No. 20.

28. I do not know.

29. Cannot say.

30, 31, 32 and 33. Do not know.

35. Yes; it is prohibited here. It would, I have no doubt, be consumed illicitly, but only to a small extent. The number of consumers in Burma is small I think, and no serious discontent has occurred. It would not amount to a political danger. I cannot say as regards (*a*) or (*b*).

36. No; I do not think so.

37 to 39. I cannot answer these questions.

40. Not that I have heard of.

41. I do not know, and have never heard that charas, ganja or bhang were beneficial.

42. I cannot say. I should doubt these being harmless.

43. I do not know. My experience of ganja smokers is very slight.

44. I cannot say. As ganja has been prohibited here so long, and is only mostly met with in the seaport and military stations and posts, my knowledge of the subject is limited.

45. From what I have seen of ganja smokers, I should say it certainly had a noxious effect, physically, mentally and morally.

46. I am unable to discuss the question.

47 and 48. Cannot say.

49. Do not know. It is used by prostitutes. Cannot say if the use of hemp tends to produce impotence.

50. Cannot say.

51 and 52. Cannot say. My experience of ganja smokers in Burma is limited.

53. I should say it would, but cannot quote any cases.

54. I have heard so, but cannot give instances.

55. I have heard so.

56 and 57. Cannot say.

58. I think it is working well.

59. Probably some more European Excise Inspectors would do good.

60, 61 and 62. Ganja is prohibited here.

63. They are not sold here.

64, 65, 66 and 67. Not allowed here.

68 and 69. No.

70. Cannot say.

---

5. *Evidence of* Mr. A. R. Birks, *Officiating Commissioner, Arakan Division.*

1. I have had no special opportunities for obtaining information, as my attention has not been directed to the subject. The information now supplied has been given me by Mr. Wadman, Inspector of Excise in this Division. In one or two cases I have had ganja produced in Court, and I am aware it is sometimes sent through the post office to men in the military police force.

2. The Burmese name for ganja is "sè chauk."

3. A species of wild hemp grows in the Division, but not abundantly.

4. It is called "boil ally" by the Chittagonians.

5. Not known.

6. It grows like a weed and is scattered.

12. I believe not. From enquiries it appears that the wild hemp is of very little good, and only used occasionally for medicine.

18. Ganja deteriorates after being kept two months in the damp climate of *Arakan*. If well wrapped up in cloth and put in a *chatty* with paddy husks and buried near a fire-place, it will stand for about four months at the most. Mr. Wadman has seized ganja buried in this way.

19. Charas is not used here. Ganja is smoked or put in curries and cakes. It is also taken with milk. When put in curries or milk the juice is extracted first. Smoking is the most common way in which the drug is used.

20. The natives of India are the only people who use it in this Division.

21. Flat ganja; the price varies from Rs. 35 to Rs. 45 per seer.

22. The little ganja that is used here is smuggled from Chittagong. In the shipping season a little is brought by native vessels from the Madras side.

23. Bhang is not used.

25. I should say that ganja is more used than formerly. I believe the military police introduced into Burma since the annexation indulge in this when they can get it.

31. There is no tendency to excessive consumption. After indulgence for one year the habit is hard to break off.

42. I have never heard of any cases where the use of the drug has been found harmful.

43. Yes.

6. *Evidence of* Mr. J. K. Macrae, *Magistrate of Hanthawaddy.*

Oral evidence.

Question 1.—I have been in the Burma Commission since 1860. I have been in charge of ten districts in all Divisions of Lower Burma. I have not served in Upper Burma. I have had all the districts both in the Arakan and Tenasserim Divisions.

Before prohibition was introduced, I noticed that the use of ganja had begun in the Sandoway and Kaipin districts of Arakan. The Arakanese do differ from the Burmans, who do not acknowledge them as the same race. I know of no cases of use by pure Burmans before the prohibition. The Arakanese have now quite abandoned the use of ganja. I have been there in 1885-86, and never knew any instances of use then by the Arakanese. I know of no reason to believe that Burmans would have taken to ganja apart from prohibition, except that they are excitable and also easily led by fashion. Their adoption of the opium habit leads to the supposition that they would have adopted ganja. The prohibition has succeeded in keeping them from it. As to natives of India, it must have succeeded in keeping much ganja out of the country. I do not believe that ganja is a marketable commodity in the bazars. It is smuggled in small quantities, but no facts have come to my notice to show that it is obtainable by any one who chooses to pay high enough.

I am Magistrate of the Hanthawaddy district, with my head-quarters in Rangoon. The heavy cases of smuggling referred to in Mr. Culloden's memorandum of 1st December last have not come to my notice. I know nothing about them. When in charge of Akyab a few cases of smuggling (two or three a year) came to my notice—seizures at the Customs House. They were one or two cases of bundles of, say, about a cubic foot in bulk of ganja each in a year. They were brought in by coasting steamers. Also some cases occurred of small quantities being found in people's houses. I believe only secret smuggling in small quantities is the rule. The police, as a rule, acted on the statements of informers. No special measures were taken by the Government to enforce the prohibition. These are all the cases of smuggling I know. In Rangoon I am not in the way of hearing of cases. For the last four or five years there has been a special Excise Department in every district, or at least in certain districts, in large districts on the sea-coast. It is employed on opium, spirits and drugs. But I believe the establishment had its origin in the desire to suppress opium, and also to protect the revenue from illicit distillation and importation of spirits. These were the two main objects, I believe.

It is possible that the action already taken might be supplemented by further action, but I have not thought out the matter. I should regard the taxing of imports for natives of India as a licensing of importation, and I would oppose that. I would have prohibition, pure and simple. My object is to keep the drug from the Burmans, and I do not think the class of natives who use it habitually are wanted here. My experience of natives of India is so limited that I really do not know about that. In the case of the army, I think that men should be recruited who do not use the drug. I know nothing personally of the effects of the drugs in India. But I believe from what I have heard and read that it would be a bad thing for Burmans to acquire the habit, and I do not think that the habits of immigrants should be considered. It is possible that advocates of local option might think the same in regard to liquor used by Europeans in Burma. It is a matter of opinion. I cannot say. Natives of India of the proper class are required in Burma, and I believe they are not, as a rule, habitual consumers. Perhaps, though general licenses would be bad, personal licenses, as in the case of opium, might be given. I believe in this experiment in regard to opium, and I think it might be tried in regard to ganja, that is, that the natives of India who use the drug should be compelled to be registered, and it should be prohibited to Burmans.

7. *Evidence of* Mr. K. G. Burne, *Deputy Commissioner, Mandalay.*

1. I have had little or no opportunity in Burma, as the cultivation of hemp is prohibited, though in 1891, as mentioned further on, hemp was to a small extent cultivated for medicinal purposes, chiefly for cattle, I believe; but the cultivation was put a stop to.

What is known as ganja or 'sé chauk' is smuggled into Burma from India *viâ* the post or by steamer by natives of India.

In 1891, 351 tolas of ganja were seized, of which 300 tolas came from India. In 1892, 67½ from Shan States and India. In 1893, 10,780 tolas from Shan States and India, of which 9,897 tolas came from India, but none from Burma, as far as known.

3. The hemp plant was found cultivated to a small extent in some parts of the Madaya and Pyinulwin townships of this district in 1891, but measures were at once taken, and there is at the present time no hemp grown at all.

4. By one name, ganja or sé chauk.

5. I am not aware of any special conditions. In places where it was grown the rainfall ranged from 30 to 50 inches per annum, and elevation from about 300 feet to 3,600 above sea level.

7. None known here.

19. Ganja so called, or sé chauk, used to be used for medicinal purposes only in this district. Except by natives of India.

35. (*a*) Yes, as in Burma.

(*c*) By the existing excise law.

(*d*) I cannot say. The Burmese do not consume any of these drugs pure and simple, but the ganja with ingredients for medicine.

(*e*) I cannot say.

(*f*) Probably.

54. Not in Burma as far as my own experience goes.

Oral evidence.

I have been in the Burma Commission for twenty-two years. I have served in the Tenasserim, Irrawaddy, and Pegu Divisions of Lower Burma, and have been in Mandalay (Upper Burma) since 1891.

I remember the prohibition of 1873. I was then in the Tenasserim Division in the Amherst district. There was no ganja shop there. So I know nothing about the effects of the prohibition.

In 1882 I was in the Hangawaddy district (Rangoon); but I cannot say anything about the effect of the amendment of the law, inasmuch as cases of illegal possession did not, so far as I remember, come under my notice.

Soon after I took charge of Mandalay district in 1891 my attention was drawn to the subject. I have no recollection of cases before that. In 1891 I found that hemp was grown in gardens, compounds, and cleared yards round houses in this district. There was no extensive cultivation by any individual: no field cultivation, but individuals had plants, I was told, planted for their own use. It was reported to me by local officers, because excise was being specially looked after in connection with opium smuggling. It was the measures taken in connection with the detection of opium smuggling, which was believed to be common, which brought this ganja cultivation to light. It was not general or over an extended area; but I cannot say that it was not formal cultivation. I believe it was generally for medicinal purposes for man and beast; but it may have been used for smoking. I issued order, under the cognizance of the Commissioner, warning the people that this was illegal, and that those who cultivated the drug would be prosecuted. A few prosecutions did follow, one or two cases, as an example. I believe this was the first action of the kind taken in this district after the extension of the Excise Act to Upper Burma in 1888. I do not think that the correspondence with the Commissioner would throw light on the amount of cultivation. I know of no prohibition of cultivation under Burmese rule, and I have been told by Burmese officials that cultivation went on then. I believe that there is now no cultivation in this district. I have made enquiries, and the reports of all my officers show that the cultivation does not exist. I have not myself seen the plant growing. I should not recognize it.

The figures given in my paper (answer No. 1) regarding seizures refer to my own district only. They are taken from the records of prosecutions or of cases of ganja seized without discovery of the offender. I cannot explain the increase in 1893. But of the 10,780 tolas for that year, over 7,000 tolas were found in a box which came from India. It was discovered by the customs officials, who warned us. The consignee was a native of India, and a petty trader. I understand that he got the drug to sell. The figures I have given in my paper are figures for seizures. They show the cases that have come to light. There were probably many cases that did not come to light. I think that such a large amount of smuggling would not indicate that all was to be used locally. The importers might hope to dispose of the drug over all Upper Burma. I do not think they would expect to create a demand. There is a demand among sepoys, military police, and other natives of India. There were some other seizures in 1893, amounting in one case to 300 tolas and many small items, and totalling altogether 10,180 from India. Other cases were of military police returning from duty in the Shan States. I cannot give any special reason for the great activity in 1893. But it may have been due to the fact that troops and military police were on duty more in 1891 and 1892, and centred here more in 1893. There has been special establishment off and on since 1891; but it has been largely reduced last year. We have still one Superintendent, one Inspector, and eight Sergeants. The Sergeants are stationed where there are police. The reason of the reduction was to spread the establishment over a larger area, as its concentration in this district was held not to produce good results.

The boundary of the Shan States against Mandalay is a very easy one for smuggling. It is jungle, in parts uninhabited. This applies more or less to all the eastern boundaries.

The cases of smuggling through the post, which have come to light, have been consignments to military men, not to the general public. There are only five Burmans in respect to whom any seizure has been made during the last three years. All the rest are natives of India. In the case of postal consignments, detection has been by the postal authorities.

The practice here is for the post office authorities, when they suspect a parcel, to give intimation to the Revenue Officers before delivery.

As far as my experience goes, the general opinion of Burmans in respect to prohibition is one of indifference. I have heard a Burman official declare that he thought the prohibition was hard on the poorer people using the drug medicinally, chiefly for cattle and ponies, not so much for human beings. But generally the attitude is not of indifference.

8. *Evidence of* Major W. F. H. Grey, *Deputy Commissioner, Toungoo.*

1. Personal observation and the reports of subordinates.

3. Prome and Shwebo. It is not abundant in either.

4. The Burmese name is bing.

7. No.

12. I have heard that it is sometimes cultivated in toungyas in the Prome district, but the practice is uncommon.

41. I am informed that fishermen believe that by the use of ganja their powers of diving and remaining under water can be increased, and that, in spite of the prohibitions, it is occasionally used by them with this object.

67. No.

I have no information whatever with regard to the questions left unanswered.

---

9. *Evidence of* Mr. A. M. B. Irwin, *Deputy Commissioner, Tharrawaddy.*

1. Only police reports of prosecutions for possessing ganja.

2. I have never come across charas. Ganja is called by Burmans "sè chauk," which means "dry drug" or "dry tobacco." In Akyab it is called ginza. The specimens I have seen may have been ganja or may have been bhang, I do not know. The Burmans make no distinction.

3. I do not know of any.

14. Not that I know of.

19. I do not know.

22. From Bengal, I believe.

25. Pretty stationary, I think.

26. I do not know.

27. I believe ganja is largely consumed in Burma by natives of India. I know it is in Akyab. I think the prohibition of possession has very little effect. So far as I am aware, Burmans never took kindly to hemp drugs.

35. It is consumed illicitly, and prohibition can, I think, never be wholly successful.

43. I think so.

51. I never detected any connection between them.

53. No; I know of no case.

Oral evidence.

Question 1.—I have been seventeen years in the Civil Service. I joined the service in 1876 and came to Burma in 1877. I have served in all divisions of Lower Buma and not in Upper Burma at all.

Question 27.—I have served two years in Akyab, and my written answer is based on that experience and facts which came to my notice from 1881 to 1883 in Rangoon. I have come across no instance of consumption of the hemp drug by Burmans, even the Arakanese. The Arakanese regard themselves as a distinct race and hate the Burmans. The police reports I refer to in written answer to question No. 1 are the first and final reports of offences. I have not dealt with any cases of smuggling or illegal possession since I have been District Magistrate. I recollect that cases of smuggling did occur on British India ships coming to Akyab. I have no information about smuggling by native craft, though it is possible it occurs. I cannot recollect any facts connected with the smuggling into Rangoon. I have general recollection of prosecutions in the Shwegyin district before I went to Rangoon. In Akyab certainly ganja can be bought in the bazar. I have never made practical test of the fact, nor do I know the price the drug sells at.

I do not think my statement that prohibition of possession has very little effect is too strong as regards Arakan, where my experience is most recent. I am not so sure that the same statement would apply to Rangoon; but I think it is probably true there also. It is true, I believe, that the Indian population in Burma is increasing. My answer to question 25 may be read as applying to the habit and the proportion of consumers, and not to the total consumption.

I think that the working of the prohibition is a means of oppression by the police and a cause of corruption among them. The Assistant Commissioner of Akyab, who has to deal with the prosecutions, used to class a great many cases as intentionally false, which means that the cases were got up by the informers or the police or excise officers.

Question 59.—I do not think the present prohibition causes any discontent, and that, therefore, it would be unwise to withdraw it without very strong reasons. The Burmese certainly do not feel any discontent, and I think the people of India can get the drug when they want it. This is not satisfactory, it is true. But I cannot make any definite recommendation regarding changing the system, because I have not formed any opinion regarding the harmful effects of the drug. If it were proved that the drug were more harmful than opium, I should probably be in favour of maintaining the present prohibition at all costs. But if it is not sufficiently harmful to justify total prohibition, I would advise what I proposed for opium before the Opium Commission, *viz.*, that possession should only be permitted to licensed individuals without distinction of race, and that part of the revenue should be raised by such licenses. The remainder of the revenue would be raised as before, that is to say, in the case of opium by the fee for the right of selling and the fixed duty on the drug, and in the case of ganja by the right of selling only. The right of sale should be granted on fixed fees, and not by auction. If it were feasible to fix the price of ganja as the price of opium is fixed, my proposal would not be affected. A point, however, to be kept in view would be the equalisation of the wholesale price in different provinces. Experience shows that in the case of opium differences of price are an inducement to smuggling. I do not think it is likely that the Burmans would ever take to ganja, for they have not taken advantage of the opportunities, such as they are, which have already presented themselves, though they have taken to liquor and opium readily enough. Amongst the best class of Burmans there are some consumers of liquor and opium. Total abstinence is not in practice a very strong sentiment, though the religious injunction is very strict.

10. *Evidence of* Mr. H. Adamson, *Deputy Commissioner, Meiktila.*

1. The experience of sixteen years' work as an Assistant Commissioner and Deputy Commissioner in Burma. As, however, bhang, charas and ganja have been prohibited in Burma for twenty years and more, all dealings in these drugs are secret, and an official hears very little about them.

2. The definitions are correct.

3. I understand that the hemp plant, from which drugs can be got, does not grow spontaneously here but must be cultivated.

4. The bin-pin or segyaukpin. I believe they are the same plant. The bin-pin is not to be confounded with the bein-pin, which is the poppy.

7. It is cultivated secretly in gardens occasionally, and it is said that the soil of almost any garden in the country is suitable for its production.

13. It is altogether prohibited.

14. Whether they are prepared or not, I cannot say; but all these are to be found in the possession of natives of India, who secretly traffic in them.

20. Natives of India, such as military police, camp followers, shoemakers, mehters, etc. Very few Burmans use it.

22. The charas used is almost entirely imported from India.

25. Its use among Burmans is so trifling as to be scarcely worth notice.

33. Bin or ganja used to be classed with opium in the time of Burmese rule, and its use was nominally prohibited.

35. As regards natives of India, I am doubtful. But the prohibition during the past twenty years has certainly had the effect of preventing the vice from spreading from Indians to Burmans.

40. Yes; ganja was used for dysentery by Burmese doctors, and it is considered invaluable as a medicine for elephants.

43. Yes.

58. I consider that the present system of locally prohibiting these drugs is working well, and I think that it should not be in any way changed.

70. In the instructions to witnesses it is stated that the Commission are anxious to know whether the consumption of charas and bhang has increased since the prohibition of ganja. There appears to be a misapprehension, as the prohibition of ganja has always included the prohibition also of charas and bhang. Prosecutions for illegal possession of ganja are common enough. But there have been very few prosecutions with regard to either charas or bhang. I cannot say why, as these drugs are common enough. I had no difficulty in procuring a piece of charas from the bazar here for my own inspection through a servant. It is said to sell for its weight in silver. It is quite clear that, notwithstanding the prohibition, these drugs are smuggled into the country to a considerable extent, for they are in common use among natives of India. But it is certain that their use among Burmans is quite insignificant, and I have no doubt that this fact is due in great measure to their use being prohibited by law.

---

11. *Evidence of* Mr. H. G. Batten,* *Deputy Commissioner, Mergui.*

1. I have served in the Burma Commission since April 1878 and have been located in the following towns and districts of Burma,—Rangoon, Pegu, Moulmein, Hanthawaddy, Henzada, Myanoung, Sandoway, Thayetmyo, Thongwa, and in Mergui since January 1890. I was on the Kumaon Commission, North-West Provinces, from October 1869 to April 1873. Hemp was extensively grown in Kumaon and Garhwal, and I had good opportunities of becoming acquainted with the plant.

2. In Mergui the hemp plant is known as the pi-san-bin, the plant from which nets and ropes are made. The drug is generally known as segyauk, or the medicine which induces nervousness or fright—a narcotic in fact.

3. I have only noticed the indigenous wild plant in this district, Mergui, where it is abundant throughout.

4. Pi-san-bin is the only name given for the hemp generally.

5. The soil should be rich alluvial loam, climate hot and damp, low level. Hemp used to be cultivated to some extent before the Act prohibiting it came into force throughout the district.

6. Dense in open spaces or clearings.

7. Not now, except secretly for (*a*), (*b*), (*c*), and to a very small extent.

8 and 9. Nil.

10, 11 and 12. No.

13. Nil. Possible all over the district.

14. None, except illicit. In January 1891 I convicted a Siamese man for growing hemp in a village in the Tenasserim township. He was a known bad character and was at the same time convicted under Arms Act. He grew the plant to prepare the ganja.

15. The flowers and leaves are simply dried and used for smoking.

16. (*a*) and (*b*) Yes.

(*c*) No.

17. No particular class.

18. The climate would injure any such drug after a short period.

19. For smoking only. Formerly, before the growing of hemp was prohibited, people used the leaves of the cultivated hemp for mixing with their curries.

22. Foreign, imported illicitly from India and from across Siamese frontier. The Subdivisional Officer, Maliwun, recently convicted a military policeman (Gurkha) for possession of ganja procured, he said, from across the river (Siamese territory).

25. Hardly prevalent, except by a few natives of India and Siamese.

27. Ganja is smoked by the Punjabis and Hindustanis in the Police and Survey, and habit acquired before there arrival. Also by Siamese who come into our territories. The Siamese growing

* Summoned to attend at a sitting of the Commission for oral examination, but was unable to appear.

hemp and smoking ganja is to a great extent in in their own country.

30. In solitude generally. By males chiefly.

31. (*a*), (*b*) and (*c*) Yes.

32. None that I know of.

33. All use of narcotics is forbidden by the Buddhist law, and persons addicted to use of same are held in disrepute. I believe the same holds good amongst the Siamese, who are bound by the same laws.

34. No.

35. Already illicit in Burma.

36. No.

40. (*a*) No.

(*b*) Yes, for elephants.

41. No.

42. Even the moderate use seems to affect the nervous system.

43. Yes, as far as I know.

44. (*a*) Exciting.

(*b*) No.

(*c*) Yes.

(*d*) and (*e*) No.

(*f*) Only a short time.

(*g*) Yes, depression of spirits.

(*h*) Yes, like most narcotics.

45. (*a*) and (*b*) Yes.

(*c*) and (*d*) No.

(*e*) Induces laziness.

(*f*) Yes; persons become temporarily imbecile, laughing or crying, and behave in a childish way.

46. Two Punjabi policemen in the Reserve Police became insane from the excessive use of the drug.

47. I believe not.

50. Habitual and excessive use is said here to produce impotence.

51, 52, 53 and 54. No.

55. I never heard of any such cases in Burma.

58. Total prohibition, such as is sanctioned for Burma, only system possible.

Extract from letter from Mr. Batten *appended to his evidence.*

Question 27.—I am indebted to Mr. Leslie, Assistant Superintendent of Police, for most of the information which I can give on the subject. Mr. Leslie has been in the district since 1861, and has spent most of his time on the Siamese frontier on the Packchan.

Formerly hemp was grown in the parts of the district populated by Siamese, that is, in parts of the Tenasserim township and in the Lenya and Maliwun township. The hemp was sown and cultivated in clearings in a similar way, as is usual with tobacco.

The Burmans in other parts of the district grew a little hemp, using the dried leaf to mix in their chicken curries.

The Siamese use the cultivated variety of hemp, and, when the plant is in bud and before it flowers, the plants are plucked or cut, and the whole, dried leaves, buds, and stems together, are dried in the sun and kept tied up in bundles, wrapped round with cloth for use when required. The Siamese use this preparation only for smoking, and the use of the drug is chiefly confined to men. Instances of its use by women are rare. When the new law came into force in Lower Burma, the growing of hemp on our side of the frontier practically ceased, though on the Siamese side it goes on to a certain extent, but not to the same extent as before; the Siamese officials, especially the Raja of Renong, having realized the baneful result of its use, discountenanced it.

Ganja may be said to be extinct, as already stated, on our side, except in a few cases of new arrivals from Siamese territory, who procure what ganja they require from across the frontier.

Since the native of India police entertained by the Raja of Renong were replaced by Siamese, the use of ganja in Renong has been much reduced.

It is believed that there is still a small illicit trade in ganja from Tonka and Kopa to Burmese ports. The trade is in the hands of the Bengalis and Siamese lascars of the Chinese steamers trading from these ports.

None of this ganja, as far as I can ascertain, comes into Mergui. It is probably taken to Moulmein and Rangoon for the use of the Bengalis there resident.

Smoking of ganja is looked upon by respectable Siamese in much the same light as opium smoking is regarded by Burmans, and is chiefly confined to the lower classes.

Wild hemp grows all over the district in open spaces, but is not used; the leaves of the wild variety having neither strength nor flavour.

---

12. *Evidence of* Major G. S. Eyre, *Deputy Commissioner, Sagaing.*

1. Have served in Burma since 1879, and have exercised the powers of a Magistrate throughout this period in different parts of the country, *viz.*, Henzada, Maobeng, Shwegyin, Rangoon, Akyab, Paungde, Pagan, Pakokku, Monywa, and Sagaing.

2. The definitions given may be accepted for this province. I have personally only come across bhang and ganja. Both are locally known as sè chauk; sometimes bhang is distinguished as bin, a corruption of the Indian name.

3. None.

7. None.

13. The possession even of ganja has been prohibited by law for the past twenty years.

14. None legally. Natives of India occasionally cultivate a few plants, but are generally detected and fined. A case occurred of Burmans growing ganja for sale to natives of India, but they were detected and the plants destroyed at once.

22. Illicitly imported from Madras and Calcutta.

25. On the decrease. Reasons: I have not had

any cases brought to court for some years. Illicit use, or sale, or possession is promptly reported for sake of the reward.

33. Any Burman Buddhist consuming these drugs would be regarded as utterly abandoned. The Buddhist scriptures entirely forbid the use of these drugs.

34. No, none; but natives of India use the drug. Few respectable members of that community use it, and the few who use it can get opium instead.

Of Burmans, one out of many thousands may use the drug.

35. Total prohibition has been in force for twenty years past. The drug is consumed illicitly, but practically by natives of India only, and to a very limited extent. The total prohibition does not cause discontent to the Burman population, and few respectable persons amongst the native of India community consume the drug. The existing prohibition is effective. Heavy fines have sufficed to reduce the consumption to a minimum. Natives of India who used ganja and bhang in India probably use opium in Burma.

36. Certainly not.

40. Not by Burman native doctors.

43. There are too few consumers for me to give an opinion.

45. I have known natives of India go off their heads from using bhang or ganja.

58. Working well. Not capable of further improvement. Very little of the drug is smuggled. The majority of cases are detected and offenders punished. It is impossible to prevent smuggling altogether.

62. The total prohibition now in force is absolutely necessary. Were the use of the drug to be sanctioned, the spread of the habit would be great, and the results lamentable.

64. Import and export totally prohibited in Burma.

68. None.

13. *Evidence of* Mr. W. N. Porter, *Deputy Commissioner, Upper Chindwin.*

1. Twenty-three years' service in Burma. The Police and Commission.

2. In this district and elsewhere, so far as my experience extends, hemp of all kinds is known as sè chauk. There are no separate names for separate forms of it.

3. Does not grow spontaneously, but very luxuriantly, when planted, everywhere in Burma.

4. Only sé chauk. Yes.

7. No. Medicine men sometimes cultivate a plant or two for medicinal purposes, but the fact is kept very secret. Nearly all the different forms of hemp are imported by natives of India for their own consumption. Very little is cultivated, and that only after precautions have been taken against detection.

17. Natives of India usually. Very few natives of Burma indulge in ganja.

19. No. It is put in curry, the flavour of which it is said to improve. The leaves of the hemp are also occasionally smoked with tobacco in the form of cigars by Burmans and Shans, but instances of either use are very rare.

20. Shans in the Upper Chindwin used to do so under the Burman regime. The practice, however, was not very wide-spread nor general, and since the British occupation and absolute prohibition, the use of hemp has practically disappeared.

21. The leaves of the hemp plant.

22. Not used.

23. Principally by natives of India, but very seldom by Burmans and Shans.

25. Rapid decrease among Burmans and Shans, owing to the absolute prohibition of the drug and measures adopted to enforce it. The use of the various forms of the hemp plant is rather common among natives of India.

27. I can't speak for natives of India. In case of Burmans and Shans the practice of hemp consumption is so very uncommon that information in regard to questions Nos. 26 and 27 is not available. In fact, among them there are no habitual consumers, the young bloods only occasionally indulging.

31. Among Burmans and Shans it does not amount to a habit. They have no difficulty in refraining from its use, because they so seldom take it.

33. Hemp consumption is regarded with strong disapproval by Burmans and Shans.

40. Yes; both by Burman and Shan medicine men as a febrifuge and digestive and remedy for rheumatism.

44. On Burmans and Shans its use leads to temporary mental derangement or intoxication, as it commonly happens that, when taken at all, which is very seldom, it is taken in excess.

45. I can't say; the hemp habit is so infrequent in Burma.

49. Yes; occasionally. I have heard of a few instances.

51. No. None in the case of Burmans and Shans. With regard to natives of India I can't say.

57. The leaves of the hemp plant are sometimes eaten in curry. The effect is to intoxicate and induce sexual desire.

14. *Evidence of* Mr. S. H. T. de la Courneuve, *Deputy Commissioner, Pakokku, Upper Burma.*

1. Twenty-one years' service in Burma: sixteen in Lower Burma, and five in Upper Burma.

2. Ganja is known in this province under one name only, *viz.*, sè gyauk. This is the flowers and leaves of the plant.

3. I have never seen it grown. I have served in nine districts in Lower Burma and five in Upper Burma, and have never seen the plant or heard of it either as indigenous or cultivated.

4. Sè gyauk is the generic term for ganja.

6. Not indigenous.

7. No.

14. No.

19. Sè gyauk is not used for smoking by the

natives of Burma. It is used as a medicine only, and that in very limited quantities.

58. The absolute prohibition of the production and consumption of ganja in this province in 1872-74 has had the best results and cannot be improved upon.

15. *Evidence of* Mr. A. L. Hough, *Deputy Commissioner, Akyab.*

1. Little or none. Ganja has been prohibited in Burma for very many years and is not used by the people of the country so far as I know.

2. Never saw or heard of anything but ganja. What I have seen looks like dried leaves or dried sprigs.

3. None in Burma to my knowledge.

14. None to my knowledge in Burma.

19. I do not know how ganja is used.

20. I know of no one but natives of India using ganja.

21. I do not know.

25. The use of ganja is, I think, on the increase in Burma, because the number of cases in court have, I think, increased since more native of India troops and military police came into the country subsequent to the events of 1885. My three years' experience as District Magistrate of Rangoon leads me to say this, and the influx of natives of India steadily going on should cause this result.

26. Cannot possibly know.

35. The Financial Commissioner has asked me to furnish you with the following information :—

(i) The smuggling of ganja.

(ii) The success of the system of prohibition which has been adopted in Burma.

As regards point (i), I am inclined to think after a three years' experience as Deputy Commissioner of Rangoon town from May 1890 to June 1893, that smuggling has increased, and that it is due to the influx of the natives of India from the Madras side, also to the increase of native troops since the events of 1885. The records of cases tried and the experience of the Rangoon Excise and Customs officers will, I think, prove that I am in all probability right. It is now brought in, to some extent, by post, but principally in Rangoon by the crew of the British India Steam Navigation Company's steamers, who put it in floating tins, and as they come up the river somewhere about Elephant Point throw it overboard to accomplices who are on the look-out in small boats, or sampans.

As regards the (ii) point, I should think, considering the fact that ganja is not used by the indigenous races of Burma, or if it is, only in very solitary instances, that the system of prohibition has, on the whole, been successful; but it is by no means certain whether the success may not be due to the fact that the use of opium has taken its place. I cannot give any other facts to support my view. The Financial Commissioner has also desired me to give the quantity of ganja smuggled into this district during the past three years. The approximate quantity smuggled is as follows :—

1890-91	254 tolas.
1891-92	267 „
1892-93	1,018 „

58. Hemp drugs are prohibited in Burma.

60. Not produced in Burma, to my knowledge.

68. None in Burma.

16. *Evidence of* Mr. J. S. D. Fraser, *Deputy Commissioner, Pegu.*

1. No personal experience regarding the different narcotic products of the hemp plant. My personal experience is only regarding the smuggling of ganja into the province.

My answers are framed from enquiries made from the Civil Surgeon, Pegu, the Hospital Assistant of Kyauktan (a native of India), the Subdivisional Officer, Pegu, and Township Officer, Kyauktan, both Burman officers of long service and experience, Mr. Fowle, the Subdivisional Officer, Kyauktan, who has seen service in Upper Burma, especially in Wuntho, a Burman doctor of thirty years practice, and Mr. Dias, an Advocate of Pegu, who knows the Burmans, their habits and customs thoroughly.

2. Two definitions of ganja are only known—

(*a*) Sè gyauk or bin, which is equivalent to the Indian name of bhang, applied to the dry leaves of the hemp plant, whether male or female.

(*b*) Kali-hpu, which is equivalent to the Indian name of ganja or dried flowering tops of cultivated female hemp plants.

Charas is not known amongst the Burmese in this district.

3. Before ganja was prohibited in Burma, the hemp plant is reported to have been abundantly cultivated in Bassein district at Chauk Chaunggyi and Chauk Chaungale, and in small quantities in this district near the Yomas and Shwegyin district, as bawni. Mr. Fowle, Subdivisional Officer, Kyauktan, reports the hemp plant is grown in the back gardens in the Wuntho township, at the base of the spurs of hills radiating from the Maingthong peak.

4. Sè gyauk or bin.

Yes.

5. Wild hemp not seen. Cultivated hemp used to be grown on slopes at the foot of rising ground on hills low enough to obtain sufficient but not too much moisture.

6. The cultivated hemp plants were planted about three feet apart.

7. I am not aware of any cultivation of the hemp plant in this district at present.

8. See answer to No. 7.

9. Not known to me.

10. See answer to No. 7.

11. Don't know.

12. No.

13. Ganja has been absolutely prohibited in the province for the last twenty years. I should say it

would be impossible to cultivate the hemp plant in the paddy kwins of this district.

14. Not to my knowledge.

Ganja is smuggled into the province ready prepared for use of natives of India.

15. Unable to give particulars, as the subject is not known to me.

16. Don't know.

17. Formerly by Karens and Talaings.

18. No personal knowledge on the subject.

19. Ganja is sometimes used for flavouring curries and medicinal purposes.

Charas not known.

20. No statistics available.

21. Flat ganja.

22. Charas not known.

23. Bhang is used for smoking, chiefly by natives of India, in the district, and a few Burmans.

24. Burmans don't drink bhang, but only smoke it. The Hindus are reported to drink bhang.

25. Decrease amongst the Burmans. Natives of India use it when they can get it.

26. Not known.

27. The poor class. Habits of life or circumstances which lead to the practice not known.

28. Not known.

29. Tobacco is mixed with ganja, either because it is too strong or too expensive. Bhang massala is not known to me.

30. As ganja is prohibited in the province, its consumption is practised in solitude. Mainly confined to the male sex and not given to children.

31 (*a*). Yes. Not by Burmans.
(*b*). Yes.

32. Not known.

33. The consumption of each of the drugs is regarded by the Buddhists with disgust. Public opinion (social and religious) is against the use of these drugs. Consumers of these drugs are looked upon as idlers, suspects, and bad characters.

I am not aware of there being any custom of worshipping the hemp plant.

34. Not amongst the Burmans, except in the few cases of persons who have become habituals.

In my opinion it would be a serious privation to natives of India; but this question is one for the medical witnesses to answer.

35. The use of these drugs has been prohibited for the last twenty years, and is now only illicitly consumed.

36. No reason to think alcohol is now being to a certain extent substituted for any of these drugs.

37. Charas not being known, the effects of charas smoking, compared to ganja smoking, are not known.

38. Not known.

39. Consumption of ganja by smoking is said to be less injurious than eating it.

40. Yes.

The Karens give ganja to their elephants, and I believe it is used in the treatment of cattle-disease; but being prohibited, the Burman agriculturist will not admit the fact.

41. The medical officers and Burman doctors consulted say 'yes.'

42. See reply to 41.

43. Opinions differ. Offensive to Buddhists, inoffensive to natives of India. I don't know any respectable persons who are consumers of the drug.

44. The medical opinion is it is refreshing, produces intoxication, does not allay hunger, but creates an appetite. The effects last from three to six hours. After-effects are great lassitude and drowsiness. The want of subsequent gratification produces longing and uneasiness.

45. The opinion of the medical officers and Burmans consulted is, these drugs produce a noxious effect, but only to a very small degree.

Does not impair the constitution of a Burman or injure digestion or cause loss of appetite. It does not cause dysentery, bronchitis or asthma; in fact it is prescribed by native doctors as a remedy for these diseases.

Does impair the moral sense, and induces laziness, but does not induce habits of immorality or debauchery. Does deaden the intellect, and produces insanity, temporary and permanent. If temporary, the symptoms may be re-induced by use of the drug after liberation from restraint. The medical witnesses will give evidence regarding the typical symptoms and remaining points to be reported on under this section.

46. The effects of the habitual excessive use of any of the drugs is the same as the moderate use. Only the effects are more violent in form.

47. No.

48. The habitual excessive use of these drugs is reported to affect the children of habitual excessive consumers.

49. This question can be answered by the medical witnesses who will be examined. The Burman doctor reports that ganja is used by Burmese prostitutes.

50. For the medical witnesses to say.

51. Not in Burma. A ganja consumer is suspected of every petty theft in the quarter where he is seen.

52. Same as 51.

53. Yes. Personally I know of no case where excessive indulgence has led to temporary homicidal frenzy.

54. I am not aware of Burman criminals so fortifying themselves with these drugs. They fortify themselves with alcohol instead.

55. Cannot say, as no such cases have come before me.

56. No experience; can't say.

57. Ganja, when not moderately taken, eaten in a curry produces deep sleep and unconsciousness.

58 to 69. As the drug is prohibited, no reply necessary.

70. Ganja is smuggled into this province at the seaport towns by lascars and others belonging to the steamers that trade between India and this province. It is also sent by post to sepoys and others in garrison towns and towns in the interior.

Oral evidence.

Question 1.—I joined the service in June 1878 as police officer, and was transferred to the Commission in 1886. I am acquainted with most parts of Burma, except Upper Burma and the Arakan Division.

Question 25.—I do not know of the Burmans using the drug at all now. It has been prohibited for twenty years. The Indians can get the drug when they want it. I am told it is worth its weight in silver. An ordinary *chatty* full is worth about

Rs. 50. A man I arrested told me this was the value of the drug. The prohibition has been effectual in regard to the Burmans, but has not had any apparent effect in regard to the people of India. I have no personal knowledge that the Burmans used to consume the drug, but I have been told that they did. The prohibition has been effectual in preventing the Burmans taking to it, and I have been told by Burmans that some have given it up in consequence of the prohibition.

Question 35.—Nearly all the steamers coming from Indian ports bring the drug into Rangoon. I have served in Rangoon as police officer on three occasions, and as Town Magistrate. I have also served as police officer. I have arrested men for smuggling the drug both in Rangoon and the Henzada district. The smuggling by steamer is generally detected by the excise officers and the Port Trust Inspector. Arrests that I have made have been in houses after the drug has been landed. Smuggling is very extensive in Moulmein. There is a large direct trade with the Madras Coast by sailing boats. The Indian population is in comparison larger than that of Rangoon. There is a Madras Native Regiment in Moulmein, and they receive the drug more by post. I left Moulmein in March 1891. Up to that time arrests for smuggling were frequent, smuggling was largely carried on, and in connection with it there was a great deal of corruption among the police. The smuggling of hemp is a lucrative business; for I remember the sepoys of a regiment subscribing to pay up a fine inflicted on one of their fellows, and the darwan of the circuit house bungalow at Henzada, who looked the poorest of the poor, paid up a fine of Rs. 200, besides having a large quantity of the drug confiscated. This man had 40 or 50 head of cattle which he could not have bought out of his pay. A horse-keeper of mine who came from Calcutta was found with a large pot of ganja, and traded in the drug at his quarters, on my premises, where, no doubt, he thought the police would hesitate to interfere with him. He also paid up his fine at once.

Question 59.—The prohibition as regards Burmans should be maintained under penalties to both seller and buyer. Sale to natives of India might be permitted, and the drug so used should be heavily taxed. The present system is the cause of a terrible amount of corruption among the police, and oppression by the police. Provided that prohibition is maintained as regards all, except natives of India, I do not think the licensing of the sale to the Indians would cause the Burmans to take to the drug, because the habit has in their case been eradicated by the prohibition which has existed during the last twenty years. I think the large amount of smuggling which goes on with its accompaniments of corruption and oppression, and the fact that the Indian population is steadily increasing and will have the drug in spite of all restrictions, afford sufficient reason for the introduction of some such measure. The profits which at present go to the smugglers ought to go to the revenue.

Evidence of Mr. Robert C. Stevenson, *Deputy Commissioner, Yeu.*

Q 1.—I have had no experience of ganja eaters or smokers in Burma, having only met two the whole of the time I have been in the country.

Q 45.—The only thing I know on the subject is that the Burmese consider that ganja depresses the nervous system, but especially affects a man's physical courage. In support of this theory, the Burmese cite the following anecdote: Three men were paddling along in a boat in some river in Burma, and in doing so had to pass a riverine police post. One of the men was a drunkard, one an opium smoker, and one a ganja smoker. When hailed by the police, the drunkard replied to the question 'Bè thu dôn' (Who are you?), Nga hè (It is I.), the opium smoker replied 'Kyûndaw Khinbya' (It is I, your servant, sir.); but the ganja smoker meekly replied 'Kyûndan Myo ba paya' (It is I, your servant, My Lord.). This anecdote, the Burmese maintain, illustrates the aggressiveness of character caused by strong drink, the effeminacy of disposition caused by opium and the emasculation of character caused by ganja. This is absolutely all I know about ganja smoking. As said before, I have only met two men who smoked ganja, and, unlike opium eating and opium drinking, I have never bestowed any attention on the subject.

---

18. *Evidence of* Mr. R. G. Culloden, *Assistant Collector and Superintendent, Preventive Service, Rangoon.*

Oral evidence.

I have been in Burma since 1853, and my experience of ganja has dated since then. I have been in the Customs Department since then. My jurisdiction extends along the river bank from Pegu river to Kemendine on the Irrawady

I was in the country when the prohibition of ganja was issued. I came into Rangoon soon after it was taken. There was no prohibition for twenty years. There was licensed vend. I never heard of Burmans using ganja. I knew that natives of India used ganja; but we never saw it brought through the Customs House, so I cannot say how it came into the market. Licensed vendors were entitled to bring it There was no import duty; but I think that there was some kind of prohibition of import. Ganja and opium have always been, to my notion, kind of prohibited articles. I think that import of ganja was punishable. I think the stuff was lawful only for licensed vendors to import. If I had come on a consignment to a licensed vendor, I should have taken no notice. There were such consignments from Calcutta and Madras. Import by any one else would be illegal, but was carried on surreptitiously. I remember some seizures being made. This happened to a considerable extent. These cases used to be dealt with summarily by the Collector of Customs. He would inquire into the case and adjudge the penalty. If the man did not pay he would be made over to the Magistrate, who would enforce the penalty. That procedure has been abandoned, except for small cases, since 1876. Since then all cases of any importance have been left to the Magistrate.

I believe the smugglers were people like the ship's crew. They brought the stuff for native traders or shopkeepers, who sold to consumers. The object, therefore, was profit to be realised by surreptitious sale. This profit was large, because the price in India was low and it was high here. This was true of that time as well as this, though the profit is higher now.

The importation of ganja was not, I think, materially stopped by prohibition, because smuggling sltil went on. I think it went on just the same as before. I do not t hink the prohibition made any material difference. I cannot say accurately without statistics whether the importation of ganja was as great as ever, but my impression is that it was: that is, that the illicit ganja imported after the prohibition was not materially less than the licit and illicit ganja formerly imported.

I think that since 1873 the importation of ganja has been going on regularly without diminishing. I think that of late years it has increased very much. There are many more natives of India. That would explain increase.

In regard to seizures, a sudden drop in the number may be due to a change in the practices of smugglers. Then we would not know how to search for and detect consignments until we learned their new ways. This would in turn lead to a rise in the number of seizures till their plans were changed. This is the only explanation I can give of the great drop in 1889-90 and the increase in 1893. I cannot recall any other explanation of the latter, except some information some of our officers got which enabled us to make important seizures. The last two or three months show seizures slack again.

Magistrates give rewards. Sometimes half the fine, sometimes the whole of it, is given to the Customs officers who seize the stuff. They pay the informer by private arrangement. It depends on the generosity of the officer. I have had complaints made by informers and have used my influence to get the informers due amount; for we cannot work successfully without them. All the seizures mentioned in my memorandum are quite apart from the police. Officers making large seizures have sometimes complained to me of cases in which smugglers were heavily fined and went to jail without paying. In these cases no fine is realised and no reward given. This is discouraging to officers making seizures. I think some measures should be taken to avoid this. Again, if a conviction is not obtained, no special rewards are given to us.

I cannot say whether every one who wants ganja can get it in Rangoon. I know that people can get it clandestinely; but I cannot say by whom it is sold and whether everybody can get it. I hear that it costs one rupee a tola, and can be obtained in a quiet way. I hear and believe that there is a great deal of ganja in the country. I have been told by informers that the drug costs a rupee a tola. I heard that only a short while ago.

The preventive establishment working under me consists of four Inspectors and two Additional Inspectors during the busy season (February to May), about twenty-seven preventive officers, and twenty-five "temporary" officers who are kept on all the year round. They get from Rs. 80 to Rs. 150, and the Inspectors from Rs. 150 to Rs. 300. There are also six patrol peons from Rs. 12 to Rs. 14 per mensem directly under me. I do not think that there is any extortion practised by this establishment. There has been no case of this kind.

The average number of vessels that arrived at the port of Rangoon during the last five years is 1203 for each year. Native boats moving about on the river are not looked at, unless they come up to the wharfs and there is inspection of contraband goods. Sea-going craft are systematically overhauled. The trade by native craft from Chittagong, Calcutta and Madras has been almost entirely cut out by the steamer transport. I believe they still trade considerably to Akyab and Moulmein, though not so much as formerly. There is the same preventive system as we have. We used to search such native craft carefully and often found ganja. I do not think that the native craft put in on the coast avoiding the ports. I do not think that contraband traffic is thus carried on. We have never heard of any traders resorting to such places. We would soon come to know if such craft were to visit such places. We have no preventive staff along the coast line. There would not be much difficulty, so far as I see, in native craft running in this way. They also like to do as much coasting as possible.

The smuggled ganja comes principally from Madras, Cocanada, Bimlipatam, and other ports on the Madras Coast. It has not come to my notice that it comes from Pondicherry. We have had no cases. There is not so much smuggling of ganja as of opium from Calcutta. We have had no cases of late. Formerly we had some isolated cases.

We have no dealings with the police in this matter. It is principally Chittagonians and Malabar people who pick up tins of contraband ganja thrown off from ships; but I know nothing of the police being in sympathy with them.

---

19. *Evidence of* Mr. E. Lewis, *Excise Officer, Rangoon.*

Oral evidence.

I am senior Excise Officer in the town of Rangoon and the district of Hanthawaddy. I have been thirty-two years in Burma and for eighteen years in Rangoon. Before that I was in charge of excise in Thayetmyo for a private contractor when the ganja was prohibited. I left him and joined the police in 1874. From there I joined the Rangoon excise work.

I remember the issue of the prohibition of ganja. The drug was largely used by natives of India in Thayetmyo, by men employed in the Commissariat, etc. It was used by natives of Burma, but these consumers were very few. The source of supply was Upper Burma. After the prohibition I made extensive seizures from Upper Burma in my police capacity. There was no other source of supply then, for there was no railway, and the journey was fifteen or twenty days. There was much ganja over the border. I was stationed in Alimyo, near Minla, and it was easily obtainable. The consumers prefer Madras ganja to local ganja, and elephant-drivers may have brought some up with them when they came up-country. But I made no seizures, and have no facts to show that. The ganja was extensively grown across our old border. I have seen it within ten miles of our old border.

There was some cultivation, but it was said that the plant grew wild. I have seen small plots of cultivation—up to half an acre.

When the prohibition issued, there was immediate effect on the few Burmans. But it had no effect on the natives of India, who suffered some inconvenience for a few days, but soon got as much as ever. They got it from Upper Burma. It was smuggled across. I left that part in 1875 and came to Rangoon. When I came to Rangoon, I found the drug a saleable article. It is so still. They used to smuggle it by banghy parcel post. I have myself seized hundreds of tins. The tins would weigh from 50 to 200 tolas. There is now a check on this smuggling by post, and the smugglers have to take to other means of smuggling. The check is due to so many seizures being made and my getting many of the post peons into my confidence. An order was also issued that parcels for regiments should be opened in presence of the Adjutant. Parcels found to contain ganja were made over to the civil authorities. I understand that this order was issued by Government. The parcels came from Madras post and were addressed to Madras sepoys.

Discoveries of smuggled parcels were also made in the hands of merchants in the town. It was difficult to obtain conviction, because they would plead that they did not know what the parcels contained. I used to make discovery of parcels and follow them up. Even if conviction were not obtained, the stuff would be destroyed. If facts did not justify a trial, the magistrate receiving the report would only order destruction. There are, no doubt, returns of these cases in office. I have myself no figures.

If I discovered a case through a peon I would share the reward with him by private arrangement. But if the postal authorities discovered a parcel they would get the reward. But they did not make many discoveries—only three or four cases in several years, perhaps from a tin happening to break or something of that kind. This postal smuggling has been much less for the last five years.

Now ganja comes over in false-bottomed baskets, beds with ganja in pillows, etc., packed up in fish or meat, and carried on the person. It is dealt with chiefly by the Customs officers. General cargo can pass if every part is not examined; but I cannot speak definitely as to efficiency of examination. We only deal with the matter, as a rule, when the stuff has eluded the Customs Department. The other day I sent information to Mr. Wiseman at Mandalay about a large consignment of ganja having passed packed with cigars in cigar boxes, and he seized it. This illicit traffic has only come to my notice on steamers and not on native craft. The native craft are well watched at Rangoon. The Customs authorities are very strong on this. But I do not think there is any watch at all on native craft on the coast.

I have heard often of sealed tins of ganja being thrown overboard from steamers and picked up by boats. I have caught such cases by following steamers. But we work at great disadvantage, as we cannot fix the spot where such tins are to be thrown. And if we catch a man, he says, "I saw this floating and picked it up. I do not know what it is." We can then destroy the stuff, but can hardly obtain a conviction.

The Customs people board native craft coming into the river at Elephant Point. I think that cargo could be got rid of before reaching that point by dropping it along the coast.

There have been a few seizures on Calcutta ships, but nothing like what have been on Madras ships. Ships are fined too where unclaimed ganja is found; and I hear that the agents make officers responsible for their own parts of the ship. I have only heard this of Calcutta ships. The Madras smuggling is principally from the French settlement of Pondicherry.

Mr. Culloden's figures show increase in seizures. I think this is due to the increase of immigration of natives of India, who use the drug, and also to the extension of the Excise Act to Upper Burma and the recent measures taken to restrict cultivation there. There is a great deal more ganja brought into Burma now. Formerly it was one rupee a tola. Now it is four annas only in the bazar.

I am afraid I must say that the prohibition is ineffective in Rangoon. The consumers get their ganja all the same, and hundreds are getting a living by it. It is only in cases of enmity that they inform on each other.

My excise agency is one inspector, four sergeants and two peons. This is all for Rangoon and Hanthawaddy. The police have also powers as Excise Officers. They help for the reward. No reward is given when there is no conviction and fine, except in important cases, when special rewards are applied for. I think my establishment quite insufficient to deal with this matter. It has to deal with all illicit practices regarding spirits, opium and drugs, and look after the shops as well. I do not believe that ganja could be stopped even by an army of officials and constant interference with the people. If they could not get it otherwise, they would send small quantities in letters. I do not know what would happen if ganja were not produced elsewhere; but so long as there is ganja available in India they will have it in Burma.

Our preventive measures undoubtedly lead to oppression. False charges are frequent. A small piece of ganja is put under a man's bedding. I have even asked often to have such cases thrown out as false. It is common in case of enmity, as, for example, one policeman against another, especially if there is a woman in the case. Ganja is more frequently used in this way than opium, because it is cheaper. Ganja is not only weight for weight cheaper than opium, but the ganja habit is also a cheaper habit. Two annas' worth of ganja will last a man three days, while one pill or two pills of opium will cost six pice. I think eight pies a day for ganja and three annas for opium represents the ordinary consumer's supply. I do not know the qualities of ganja. I only know the smell. Natives prefer Indian ganja and we seldom now find the fresh or green Upper Burma ganja. There is no smuggling from the East, the Siam direction, into Rangoon.

It is difficult to discover the true dealers in ganja. They keep out of the way and pay the fines for their servants. But I have caught four such dealers. When information is got that such a place is a place of vend it changes, and the consumers alone know where the new place is.

When the Burmans in Thayetmyo found their ganja supply stopped they took to opium. Finding it too strong to smoke and too troublesome to prepare, the Chinamen introduced a mixture of dried leaf and opium fried together. The pipe they use is a foot long with a small tube six inches from the bottom with four inches of water in it. The smoke passed through that. The Burmans learned that. But that is also now prohibited.

The Burman consumers, however, were very

few. Burmans use ganja for their cattle, not for themselves. The few consumers abandoned the habit on the prohibition. I do not think that the Burmans would ever take to ganja. During my thirty years' experience I have found that they do not take to it. They take it for their cattle only.

20. *Evidence of* Major Peile, *Inspector-General of Police.*

Oral evidence.

I am Inspector-General of Police in Burma. The military police are mainly Northern Indians and Gurkhas and also a few Karens. The civil police are almost entirely Burmans, excluding the European officers. In municipal towns we have a few Indians also.

I joined the police in 1887 in the supply department or commissariat of the military police. Before that I had been in service in the army. For about a year I was Deputy Inspector-General of Military Police, and for three years I have been Inspector-General of the whole force. I think there are about 16,500 military police and about 13,000 civil. The military police have been employed in Lower as well as Upper Burma for about four years. They work over the same area as the civil; but in Lower Burma and the lower parts of Upper Burma they are used for treasury and other guards and escorts. In Upper Burma, as they are required for sending out columns, they are more numerous than in Lower Burma.

I have not much knowledge of the use of ganja by men in the force. I had a case about two years ago of a Gurkha who was reprimanded by his officer for quarrelling in the lines and tried to shoot his officer. He was supposed to be a smoker of ganja. It was reported so by the officers and men; but there was no direct evidence of his having taken the drug. I think the natives would more readily attribute such an act to ganja than to drink. They distrust a ganja smoker. I cannot say certainly what this Gurkha's character was. I did not take note of that. I do not know whether he drank alcohol. Being a Gurkha, he probably did. He went off to the Kachin hills and was not seen again. So far, however, as I know, the discipline of the force has not been affected by the use of ganja. I do not find the use of the drug alleged as a cause of defects in working or breaches of discipline. If I found a man who smoked I should turn him out, because he would be breaking the law and also because he would be dangerous. I have turned out such men at the end of their three-years' engagement. I think also that there have been cases of dismissal for ganja smoking.

I do not think that smuggling of ganja by the military police is common; and I do not think that the use of the drug is very common in the force. I do not think people not using the drug in India would use it here. Burma has not proved unhealthy to them. The force has been wonderfully healthy. On the contrary, men using it in India might give it up here owing to the difficulty of getting it. We recruit throughout India, and get, I believe, the same kind of men as join regiments. I do not think there is much smuggling of ganja into Burma. We catch cases sometimes. But I cannot give figures. I should have nothing to do with Customs seizures; but the police sometimes search on information received. From what I hear I understand that smuggling is constantly going on at the ports and also a little up-country across the border, but not so much of ganja there as of opium.

Last year we had orders to go and establish a post at Sima, north-east of Bhamo. We left a garrison of three hundred men there. I heard that they were getting some kind of ganja and making it into a drink and using it. The Kachins found it in the jungles and sold it to the men. We took measures to stop it. The men were Gurkhas I think, and there may have been some Sikhs among them. I think they made a drink of it. That was my impression. We could, no doubt, easily obtain a specimen of the drug. Sima is in the middle of the Kachin country. This is not the only case I know of the cultivation or growth of the plant. I understand the Sima stuff was wild. There was a seizure at Kyaukse, and another at Pakokko (I think)—seizure of stuff cultivated. In the Kyaukse case I think they were growing it round the police station itself. Cases of illicit cultivation would be dealt with by the civil police. It would be one part of their duty to report any plant found growing. But the policeman might not know his duty. We have not established police schools all over Burma; but there are orders to take up such cases. I cannot say from what date these orders have been in force. If there was special Excise establishment the police would probably leave it to them. I think that an Excise officer is bound to take a police officer with him for a search or seizure; but I am not sure whether the police would initiate such action. I do not think that the checking of ganja illicit cultivation or smuggling is a matter that has been much pressed. There has been no such evidence of injury by the drugs as to call for much activity in this direction. Our civil police are generally recruited locally and belong to the same classes as the people among whom they serve. I have heard that ganja is cultivated among the Danus. The Danu civil police would be Danus.

21. *Evidence of* Mr. J. D. Mercer, *District Superintendent of Police, Moulmein.*

51. No; these drugs are not generally used by bad characters in Burma. They are ordinarily consumed by natives of India (especially of the Madras Presidency) of the poorer classes who sometimes commit petty thefts as a means of indulging in them.

52. The same answer applies to the excessive use of the drug.

53. No; on the contrary the excessive indulgence in any of these drugs produces lethargy and eventually leads to dementia or insanity. I have not known of any case in which it has led to temporary homicidal frenzy.

54. No; on the contrary those under their influence are physically unable to do anything.

55 (*a*). No; no cases of this kind have come under my notice, dhatura being the narcotic usually resorted to for this purpose.

(*b*) I cannot say. Ganja is usually smoked in a *chillum* or earthen pipe, while bhang is prepared like sherbet and drunk. Both, however, are said to produce drowsiness.

22. *Evidence of* Mr. R. W. Martin, *District Superintendent of Police, Rangoon.*

51. A small proportion of bad characters consume ganja. Many respectable natives of India partake of bhang in the form of cooling drinks, others smoke ganja mixed with tobacco, others partake of it in the form of sweet halwa called majum. Fakirs take it in the form of pills; they mix the ganja with pepper and ginger.

Ganja leaves are also cooked in curries. The drug is smuggled into Burma from India through the Postal Department and by steamers.

In Upper Burma the plant is often seen growing near villages and is used medicinally.

There is no connection between hemp drug and crime.

52. The excessive use of ganja is said to be deleterious, persons indulging in its use and while under its influence have no inclination to commit crime; on the contrary, the feeling is one of drowsiness with an inclination to remain indoor.

53. Excessive indulgence of the drug does not incite unpremeditated crime of any kind, but I believe it has its bad results on the constitution and the consumer grows cowardly.

54. The consumer of the drug, when under its influence, grows lazy and drowsy, and consequently does not go in for committing crime, but I believe criminals when in want of funds commit crime to enable them to procure the drug.

55. Yes, there are instances where criminals to further their designs induce their victims to partake of the drug; complete stupefaction can be induced by partaking of it without admixture.

23. *Evidence of* Mr. A. G. Mayne, *District Superintendent of Police, Pegu.*

51. Not in Burma. I have not come across any such cases during my service in Burma excepting two cases mentioned below.

52. I have not had much experience regarding the use of hemp drugs. Where I served in India, dhatura and arsenic were chiefly used.

53. No; not to my knowledge.

No.

54. Yes, and in all cases in which the persons concerned are in the habit of taking these drugs. At Sagaing in Upper Burma in 1888 (?) the Sub-Major of the military police battalion was shot dead by a sepoy, who indulged in bhang. Another bhang-eating sepoy of the same battalion and in the same year, I think, attempted to murder a Burmese girl. Both these men are supposed to have fortified themselves with bhang, but as they were not captured till two or three days after commission of the offences, it would be impossible to know for certain.

I cannot recall any hemp-drugging case, *vide* my reply to No. 52.

24. *Evidence of* Mr. A. J. A. Jardine, *District Superintendent of Police, Bassein.*

51. (*a*) No. (*b*) None in my experience in Burma. I have not known these drugs used by Burmans. With natives of India, it sometimes leads to homicidal frenzy.

52. In Burma, I have never seen a case of excessive use.

53. Yes; but I have only known cases of excessive doses of ganja leading to homicidal frenzy. This was in India.

54. Not in Burma to my knowledge. But I have known a case of Burmese dacoits fortifying themselves in liquor.

55. (*a*) I have heard of cases in India, but not in Burma.

(*b*) I have not seen any cases, but I have been informed in India bhang causes complete stupefaction.

25. *Evidence of* Mr. W. G. Snadden, *District Superintendent of Police, Maubin.*

51. No; ganja is hardly ever consumed by Burman criminals.

52, 53, 54 and 55. I have had no experience of the effects of the excessive use of any of these drugs.

26. *Evidence of* Mr. M. J. Chisholm, *District Superintendent of Police, Akyab.*

51. Hemp drugs are not used by the Arakanese. The Chittagonians and Bengalis, of whom there are a large number in Arakan, indulge in ganja and drugs obtained from hemp. It is consumed both by respectable men and bad characters. I do not think it has anything to do with crime. No instance has been brought to my notice where crime has been put down to the use of these drugs. The people use it to allay pain and keep off malarious fever. Mostly all the violent crimes in this district have originated in liquor shops.

54. No; not here.

55. No case of the kind has been brought to my notice.

57. Charas is unknown here. Ganja is used with tobacco and smoked by the people.

27. *Evidence of* Mr. E. H. Molloy, *District Superintendent of Police, Meiktila.*

51. As far as my experience goes none of the Burmans with whom I have come into contact use these drugs. I have not come across any native bad characters who use them. It has apparently little or no connection with crime.

52. These drugs are not used by the Burmans.

53. Not, as far as I know; have never heard of a case during my twenty years' residence in Burma.

54. Not within my knowledge, neither have I been able to ascertain anything on the subject from the natives with whom I have been brought into contact.

55. No; such a case has not been heard of in this district, neither do I remember hearing of any.

---

28. *Evidence of* Mr. C. M. Prendergast, *District Superintendent of Police, Sagaing.*

51. Natives of India are consumers of ganja; but I do not think Burmans are habitual consumers. Charas and bhang are not known in this district. No instances have come to my notice in which any criminals or bad characters have been consumers of any of these drugs, and I do not think crime is affected one way or the other by it in this part of the country. Ganja to a small extent was grown in the district by Burmans, who did not know the same was prohibited; but it was grown for sale to natives, and not for *their own* consumption.

52. No cases of excessive use have come under my notice. I do not know of any case in which Burmans are consumers of any of these drugs in this district.

53. From enquiries made from old Burmans, I am informed that in the king's time some few Burman bad characters did consume ganja, but it merely had the effect of making them happy and sleepy; but the men from whom I have made the enquiries say they have never known a case in which it has led to temporary homicidal frenzy.

54. The opinions of the people about here are to the effect that the use of these drugs amongst Burmans does not tend to fortify them to commit crime; but that it would make them helpless and incapable to carry out any premeditated crime.

55. I have not had any experience of any such cases.

---

29. *Evidence of* Mr. W. H. Tarleton,* *District Superintendent of Police, Thayetmyo.*

51. The large proportion of criminals in this district, are opium smokers and not consumers of ganja, etc.

Bhang and charas are not known to Burmans.

Certain villages round Tindau and Thetngaibyin in the Allanmyo subdivision are in the habit of trading in ganja which they bring into Allanmyo and Thayetmyo and sell to natives of India. To my knowledge there are no habitual consumers among the natives of India in this district, and moderate consumption of the drugs referred to does not lead to crime.

52, 53, 54 and 55. I cannot answer these questions as no cases have occurred in this district, nor have I heard of any cases during my service in the Police.

---

30. *Evidence of* Mr. E. G. Mumford, *District Superintendent of Police, Tounghoo.*

51. (*a*) No; not in Burma.

(*b*) The use of these drugs does not affect crime in Burma.

52. See above.

53. No.

54. No.

55. (*a*) Yes; but very rarely in Burma.

(*b*) Yes.

---

31. *Evidence of* Mr. R. A. E. Castle, *District Superintendent of Police, Prome.*

51. From enquiries made, I find that bad characters in this district are not consumers of these drugs. If there be any consumers at all, the percentage is so very small that it is unnoticeable.

Consumption of these drugs has no connection with crime in this district.

52. There is no excessive use of these drugs.

53. The only effect of excessive use is heavy sleep and stupidity. If excessive use be continued, it leads to idiotcy, but does not incite to crime, violent or otherwise.

I do not know, nor have I heard, of any cases in which it has led to temporary homicidal frenzy in this country, though it does so in India.

54. No, not as a rule, though there are exceptional cases. Criminals, if they wish to fortify themselves, do so by drinking liquor.

55. Yes, criminals do induce their victims to partake of these drugs, and so stupefy them.

* Summoned to attend at a sitting of the Commission for oral examination, but was unable to appear.

Complete stupefaction appears to be induced by this drug without admixture.

The general opinion regarding this drug is that, if used, it causes heavy sleep and stupidity. Criminals require all their wits about them when about to commit crimes, and so do not use it.

Burmans, as a rule in this district at least, appear to fear the drug, seeing that it leads to idiotcy.

---

32. *Evidence of* Mr. A. A. St. Clair Miller, *District Superintendent of Police, Tharrawaddy.*

51. The drug is not used by the Burman bad characters of this district.

52. It is not used.

53, 54 and 55. No.

56. Not used in this district.

---

33. *Evidence of* Mr. H. P. Pedler, *District Superintendent of Police, Shwegyin.*

51. The bad characters of the Shwegyin district are chiefly Burmans, and they scarcely ever use these drugs even in moderation. Natives of India (Hindustanis), are known to use the drug in moderation, and when so used, its use has no connection with crime.

52. Excessive use is very uncommon. I cannot recall to mind a single instance of it in this district during the last year; excessive use is known to lead to one kind of crime, which is known as "running amuck."

53. As reported above, I know of no instances since I have been in this district. If used in excess, and if followed by crime, it would be unpremeditated violent crime.

54. No; not to my knowledge.

55. No such cases have ever been proved to my knowledge, and I cannot say whether complete stupefaction could be induced without admixture.

---

34. *Evidence of* Mr. A. D. Kiernander, *District Superintendent of Police, Minbu.*

51. The consumption of hemp drugs is solely confined to natives of India, with whom I have had very little experience, and regret that I am unable to give an opinion.

53. The only case that I know of was that of a Hindu syce in my employ. He frequently indulged in bhang and behaved like an idiot for two or three days at a time. He laid hands quietly on articles he could find and threw them into the well whilst intoxicated; he would not let any one approach him, and climbed up trees to escape being captured.

54. I have had no experience of any such case.

55. I regret that I am unable to give an opinion.

---

35. *Evidence of* Mr. B. L. Cumberland, *District Superintendent of Police, Magwe, Upper Burma.*

51. No; moderate use has no connection with crime in general or with crime of any special character.

52. The excessive use of any of these drugs undoubtedly leads the poorer classes to commit theft, to enable them to purchase the drug. I do not think it leads to crime of any special character.

53. Yes; I have known more than one case in which excessive indulgence has led to stabbing cases, but in these cases there has been previous enmity.

54. No; I think not.

55. No.

---

36. *Evidence of* Mr. E. G. McDougall, *Officiating District Superintendent of Police, Myingyan, Upper Burma.*

51. No; most certainly not } in this province.
No connection whatever }

52. The use of these drugs in most parts of Burma is so infinitesimal, that they have no perceptible influence on crime at all.

53. Not that I am aware of.
No.

54. No.

55. Perhaps in one case in ten thousand.
Yes.

---

37. *Evidence of* Brigade-Surgeon-Lieutenant-Colonel D. Sinclair, *Inspector General of Jails, etc.*

Oral evidence.

I am Inspector-General of Jails with Civil Medical Administration, including hospitals. I have been in Burma since 1871. I have never held charge of Lunatic Asylums and have no special knowledge of insanity.

I understand that it was in 1873 that Government issued a prohibition of ganja. But I am unable to give any information of any value comparing the state of things before and after that prohibition. I was in military employ until 1873. I know nothing of the use of the drug here. I think, however, that it prevails only to a very limited degree, and that only among natives of India. I found this opinion on the experience I have of a few cases of the discovery of ganja in jails among prisoners who were natives of India. There were no more than two or three such cases in the ten years I had charge of jails. With this exception, I am unable to give any information regarding the use of the drug in Burma. I am therefore unable, from personal observation, to say anything about the effects of the drug.

The Lunatic Asylum Report and Returns are entirely prepared in the office of the Superintendent. I am not responsible for them. I do not always share the Superintendent's views, though I pass on his report. I think that the information on which causes are assigned is generally unreliable. I base this opinion on what I have heard from Superintendents of the grounds on which they make entries. They are anxious to get information and lay hold of anything they get, though it is often of little value. It is difficult to get any information. We often cannot even get the names of individuals. The form prescribed has to be filled in, and the endeavour to do this leads to causes being entered which have not been fully ascertained. The causes in the returns might be shown as unknown where cause is not ascertained. There is really no objection to this. But the impression, if this were largely done, would be that the Superintendent was not taking sufficient pains to ascertain what the causes were. I should not like to say that it was a merit to have the entries in the column of "unknown cause" few in number. I see that in the 1884 report I make a comparison with other provinces that would indicate this. The fact is that if the entries were numerous the impression would be unfavourable; I should be inclined to think that the officer was indolent. Since then, however, I attach less weight to the causes shown than I did then.

The subject of the connection of the drug with crime has never come before me in my jail experience. I have formed no opinion on the matter. I have no sufficient materials. I believe that if there were any great connection between ganja and crime it would have come to my notice; but that is only an impression. I have no facts on which to base any opinion.

My duties give me no opportunity of judging of the working of the system of administration in respect to drugs.

---

38. *Evidence of* Surgeon-Lieutenant-Colonel O. Baker, *Civil Surgeon, Rangoon.*

Oral evidence.

I have been over twenty years in the service and for nineteen years in Burma in civil employ. I have had no special training in lunacy and no special experience in lunacy. I have had charge of this asylum only for a little over two months. I had never to my knowledge any experience of ganja insanity before I joined the asylum.

Last year out of 169 civil lunatics, 72 were admitted from Rangoon. The lunatics from Rangoon come for observation here; and the medical certificate is made out here. They come with a statement from the police, which is frequently quite blank, every entry being filled in as "Not known" or "*Nil.*" The only case of insanity ascribed to ganja which has come to the asylum since I joined is that of Abdul Kadar. He was sent merely with a letter asking that he be kept under examination. No information was sent with him. The Assistant Surgeon, Moung Thin, filled in the Case Book after seeing the man's friends. I did not see the friends. The friends very rarely come at all; and they cannot be kept. In this case I did not see them. The Assistant Surgeon entered "ganja eating" as the exciting cause, no predisposing cause being given; and the following entry occurs three days after the man's admission:—"Some friends of his informed me that Abdul Kadar used to indulge himself very freely in the use of ganja with milk for about a year prior to his admission into this asylum. They say that the abuse of ganja has driven him to madness." Setting aside this entry, there was nothing in this man's condition that would have led me to suspect toxic insanity. There were no special symptoms in this case.

In regard to cases sent in from other districts, the information is most incomplete. In more than half the cases received last year no cause of insanity was given. When a cause is given, we accept it as such. We have of course nothing else. My experience is short, and I have had no reason to question any entry made by a Civil Surgeon or otherwise in a "history" received with a lunatic. I think that officers concerned are glad to find a cause when they can. I think they are under the impression that it looks as if they were not zealous if they do not find a cause. The most recent orders on the subject are contained in Dr. Dalzell's Circular No. 21, issued to all Civil Surgeons on 21st July 1892, while he was acting as Inspector General of Jails.

39. *Evidence of* Surgeon-Lieutenant-Colonel P. N. Mookerjee, *Civil Surgeon, Sagaing, Upper Burma.*

1. My knowledge of the drug is chiefly obtained from what I have seen of their use in India.

2. In Burma no one is allowed to cultivate, manufacture, sell or possess either ganja, charas or bhang. The Burmans in Upper Burma at least do not use these drugs. It is only used by the natives of India surreptitiously.

19. Ganja and charas are used only for smoking.

23. I have never heard of bhang being used for smoking.

28. Habitual moderate consumers take about four grains of charas, fifteen grains of ganja and about thirty grains of bhang leaves for a dose twice daily. Habitual excessive smokers take five, six or more times the above quantities.

29. Ganja and charas are smoked mixed with tobacco only. Bhang is sometimes taken by itself, but ordinarily mixed with the following:—black pepper, rose petals, almond, poppy and melon seeds, aniseed, and kasni, and sometimes sugar and milk; made into sherbet and taken as a drink. When more intoxicating effect is desired, dhatura seeds are mixed with bhang.

Bhang massala consists chiefly of the above-mentioned ingredients and is used to make the drink palatable and cooling or non-irritating to the system.

30. Bhang is frequently taken in solitude, but ganja and charas are generally smoked in company. The use of these drugs is mainly confined to the male sex. I have never seen them given to children.

31. I believe the habit of taking bhang is easily acquired, but ganja and charas depend a great deal on the constitution of the individual; some acquire it easily, others suffer more or less. The habit thus acquired is not easily broken off. With some, all these drugs from a moderate use may develop into excessive habit.

32. I have been told that during the Dassera and Kali Puja festivals, a good deal of bhang, charas, and ganja is used.

36. Half-educated natives, who would have taken to ganja or charas, take to alcohol instead.

37. I do not know the difference in the effects of ganja and charas smoking, but bhang is much milder than either of the above.

39. I have no experience of either ganja or charas, taken by the mouth, but drinking bhang in moderation is much less injurious than smoking the above-mentioned drugs.

40. Bhang is sometimes used in medicine by the native doctors, and also for cattle disease, but for what particular ailments I do not know. I do not know if ganja or charas is used in medicine for cattle disease.

41. The moderate use of bhang is said to be a digestive, and people who take it consume large quantities of food, but I do not know if it gives staying-powers or is preventive of disease in malarious or unhealthy tracts. Ganja and charas destroy digestion, but give staying-powers under severe exertion, and are also used under the impression that they are preventive of malarious diseases, which I do not think is the case.

42. The moderate use of bhang, as far as I know, is harmless.

44. The immediate effect of the moderate use to a habitual consumer of bhang, ganja or charas is refreshing, produces slight intoxication, allays hunger; bhang only creates an appetite. The effect lasts from four to six hours. The want of subsequent gratification produces longing or uneasiness.

45. I have seen several habitual moderate smokers who did not suffer at all, either physically, mentally or morally. Others have injured their constitutions by the use of ganja and charas, and some have become hopelessly insane by the above two drugs.

I have not come across any case of insanity from the moderate use of bhang.

I have known several instances of young sepoys who had become insane from the moderate use of ganja, and one young man whom I met twenty years after he was—then a harmless imbecile.

46. I have no doubt in my mind that the habitual excessive use of the hemp drugs injures the constitution and is often the exciting cause of insanity.

49. I do not know if the hemp drugs are used as an aphrodisiac, but I have been told that they help to produce impotence.

57. I have never heard of ganja or charas being eaten or drunk.

Oral evidence.

Question 1.—I entered the service twenty-six years ago. I have spent fourteen years in India and twelve in Burma altogether. My Burma service began in 1868, but since 1888 I have been continuously in Burma. I have been in civil employ for six years,—three in Madras, and three in Burma since 1891. I have had no special experience of insanity. I have never held charge of an asylum. I have seen cases of lunacy both in my civil and military practice. Regarding ganja I have had no experience in Burma, except a little among sepoys. My written answers are based on knowledge acquired in India.

Question 45.—In some constitutions the habitual moderate use may produce insanity. The case I have in mind is that of a sepoy who came from Madras in 1872. Believing that ganja was a protection against fever, he began at once to smoke it. My enquiries led me to believe that he used to smoke only once or twice a day. My experience in regard to the idea that ganja is a protection against malaria is confined to Madrasi sepoys. The man referred to above became insane in 1872, and was sent to the lunatic asylum. I saw him again in 1890, and he was still imbecile. His case is that referred to in my written answer to question 45. Regarding the man's hemp drug habit, I made all the enquiries that were possible from his comrades and native officers. I attributed the insanity to ganja, because there was no other cause, no insanity in the family, and the man was perfectly well when he came over from India. I arrived at the diagnosis by excluding other causes. I nqu ired the man's family history from friends of his in the regiment. There were some who knew him and his people. I looked upon ganja as the exciting cause of insanity in this case. The man had only smoked ganja for six months. The man was excitable, talkative and noisy. He reported me to the General as not having treated him properly. He was then in the hospital under ob-

servation. Besides the point of heredity, I consulted the man's Medical Sheet, which was all right. That was all the enquiry I made, and I thought that was sufficient to exhaust other causes. The medical history sheet only covered the period of his service, about four years. I had no knowledge of his medical history before that time. This is the only case of true insanity from the hemp drugs which I have known. The other cases referred to in my answer to question 45 were slighter, and I cannot say if they were due to moderate or excessive use of the drug. Among the slight cases I remember a young sepoy going off his head and walking round the mess table. After two days he was all right. He said he was off his head, and did not know what he was doing, and the sepoys said his condition was due to ganja. He himself denied that he had smoked ganja. The sepoys said he had smoked on that occasion, not that he was an habitual smoker. Under the influence of alcohol, people do not behave in the same way. You might say that the above sepoy was intoxicated with ganja, not rendered insane. My experience of hemp drug insanity is confined therefore to one case. My answer to question 46 is based on that case.

---

40. *Evidence of* Surgeon-Major S. H. Dantra, *Civil Surgeon, Mandalay.*

1. Having come across consumers of drugs in gaols, military police and regiments.

2. These definitions are quite in accordance with my knowledge of the drugs. I am not acquainted with these varieties. I have only known of one kind, *viz.*, the dried flowering tops, etc.

19. As far as my knowledge goes, ganja and charas are used only for smoking.

23. Bhang is generally used for drinking, but very rarely, when ganja and charas (both of which are dearer than bhang) are not obtainable, it is smoked by poorer classes. Smoking bhang is not restricted to any locality or class of people as far as I know.

28. (*a*) About twenty grains, worth one anna in Burma, and half an anna in India;

(*b*) Varies a great deal, but about a drachm in majority of cases, costing from two to three annas.

29. Ordinarily ganja and charas are mixed with tobacco; and bhang is mixed with bhang massala.

Exceptionally the first two are mixed with dhatura and nux-vomica; may be with cantharides or betel-nut, but never with opium.

The object of mixing ganja and charas with tobacco is to increase the quantity and prolong smoking by the poorer classes. Bhang is never drunk alone, but always with massala, which is supposed to produce a nice cooling feeling in the stomach. Dhatura is mixed with ganja and charas by jogis and ascetics with a view to increase the effect of the latter two and reduce their virile power. The object of nux-vomica I am not in a position to say. The number of ingredients used to form bhang massala varies a great deal. It ranges from black and white pepper, sugar and milk, to poppy seeds, seeds of water-melon, almond, pumpkin seeds, dried rose petals, fennel seeds, sugarcandy, coriander, cardamoms, etc.

30. These drugs are not used by all classes of people, but those who do use, are in the following proportion:—Bhang about 50 per cent., ganja about 25 per cent. and charas about 10 per cent. All of these are generally practised in company, rarely in solitude. Generally confined to male sex and after about 35 years of age, but bhang is at times used by females and the young, but not ganja or charas.

31. (*a*) Yes.

(*b*) No.

(*c*) Among well-to-do people there is a tendency for the ganja smokers to go to excess, but majority of working classes use the drugs under moderation.

32. I am not aware of any religious custom in regard to the consumption of any of these drugs; but the consumers of these drugs, when they pay friendly visits among themselves, are expected to offer a smoke to one another, as is customary among Europeans to offer a cigar or a peg. The custom is regarded as essential, and is generally temperate. It generally does lead to the formation of the habit afterwards, but it does not do harm in any other way.

36. Majority of men deny having substituted alcohol for any of these drugs; but from a few cases that have come under my notice I feel certain in my mind that the sale of ganja and charas being stopped, and they being so expensive in Burma, that it is quite beyond the means of many to procure them, that they resort to alcohol instead, and the consequences have been very serious on account of their going to excess in the hope of getting the same effect as that of ganja or charas. I have no actual proof to show at present, but I remember some cases that have come under my observation among gaol warders and prisoners.

37. The difference in the effects of all the three drugs is, as far as my information goes, one of degree, charas being the strongest and bhang the mildest of the three.

39. Smoking charas and ganja is less injurious than eating. By the latter process the stomach is upset. It produces vomiting, sometimes purging too, and the individual, instead of feeling happy and comfortable, feels very miserable. I make the statement from what has been told to me by men who when on duty or long marches, when they could not get fire and *chillum* (the smoking utensil or pipe) for smoking, had to resort to eating, and the above-said was the result. Excessive use of charas and ganja has produced insanity in a few cases.

40. In small doses it has been prescribed as an aphrodisiac, but in large doses it has been used in combination with dhatura as well as by itself, by jogis and ascetics as an anaphrodisiac. It has been also recommended as well as often used as a preventive against malaria and bowel complaints caused by change of climate or water or by marching through unhealthy districts.

41. (*a*) (*b*) and (*c*) Yes, it is decidedly beneficial.

(*d*) In bowel complaints, beneficial.

44. Immediate effect is very pleasing. He feels happy and forgets his troubles and trials for the time being. He does feel refreshed. It produces intoxication which is, unlike that of alcohol, of a

very passive nature. It creates appetite, but at the same time if he does not get food at once, he can bear hunger for some time without much distress or discomfort. The duration of the effect varies according to the dose and susceptibility of the individual, but generally it lasts from two to four hours.

45. (*b*) It makes one thin.

(*c*) It interferes with digestion so far that he does not take the same quantity of food, but somewhat less.

(*d*) It neither causes dysentery nor asthma, but it produces cough.

(*e*) It does not impair moral sense; excess induces laziness, but in moderation it is quite the reverse.

(*f*) Small dose excites sexual desire, but excess has quite contrary effect. In excess it deadens intellect and produces insanity, and appears to be merely as an exciting cause. The types of insanity are in majority of cases acute mania, and in a few, melancholia, and it is generally temporary, but is apt to recur by using the drug again.

(*g*) No, not in the majority of cases. It may be in a very few cases.

46. Already discussed.

47 and 48. No.

49. (*a*) Yes.

(*b*) Yes.

(*c*) Yes, by indulging in excessive venery.

(*d*) Excessive use of hemp produces impotence without fail.

50. Discussed already.

56. When sufficient quantity of hemp is not procurable on account of its heavy cost, tobacco is mixed with charas and ganja with a view to augment their effect at less expense. Besides, smoking a large quantity of charas and ganja is supposed to be more injurious than smoking a mixture of these with tobacco. Dhatura is mixed with these by jogis with a view to bring about impotency. I am not aware of the practice of mixing any of the other drugs. Bhang masala is used with bhang with the object of its being a nervine tonic and it being very exhilarating.

57. *Vide* 39 already answered.

Oral evidence.

Question 1.—I have seventeen years' service, and have been in Burma since 1877. Nearly the whole of my service has been passed in Burma. I have been in civil employ since the latter part of 1878. I have served in various districts in Lower Burma and in Mandalay. I was in charge of the Rangoon Lunatic Asylum for about a year and four months, and left that charge three months ago. I have had no other special experience of insanity. The information on which my answers are based is largely hearsay, but I have endeavoured to verify it by personal observation since coming to Mandalay in 1890. The condition of individual members of the Military Police attracted my attention, and I tried to discover to what causes the differences were due. For that purpose I enquired into their habits, their food, etc. In the course of these enquiries I found that many men indulged in intoxicating drugs and liquors. My object was to find out the cause of the falling off in physique which came to my notice in many cases. If a man came to hospital and I had to decide whether he was to be given leave I had to examine his medical history sheet and enquire into his antecedents and habits. I did not take notes of these cases. But I drew general conclusions, and those conclusions are embodied in my written answers to the Commission's questions. The history sheets, medical and other, did not help me to form an opinion as the effects of ganja on the man, but gave me information as to the character of the man since he had been in the battalion. As far as I recollect, the sheet roll did not record the man's habits in detail, but only in a general way. Some of the men confessed to the use of ganja, notwithstanding that the drug is prohibited by law.

When I got the Commission's questions I was in Rangoon. I made special enquiries from about 20 men among the Military Police in Rangoon, the Military Police in Mandalay, and the jail of which I have charge, with a view to testing the opinions I had previously formed. The men of whom I made enquiries were selected through my Hospital Assistants. I told them that I wanted to see and talk to men who were in the habit of consuming the drug, and the men who came to me were mostly consumers. When questioning the men I told them that I was only seeking information, and had not any intention of getting them punished. Most of my answers are based on my personal experience, substantiated by the enquiries which I have made recently. Some of my answers are hearsay. None of my answers related to the effects of the drug on Burmans. In fact, I have never known a Burman to consume the drug.

Question 36.—The men whom I questioned told me that they could get the drug in the bazar, though they had to pay rather a high price for it. Two brothers I knew in Bassein, one of whom was a jail warder, used both to smoke ganja. One of them, who was unmarried, continued to take ganja in spite of the high price. The other brother took to alcohol, ceased to send remittances to his family, and became a drunkard, and was dismissed the Government service. This and similar cases have led me to the conclusion that alcohol is worse than ganja; and that alcohol is being substituted for ganja among natives of India in Burma in consequence of the high cost of the drug.

Question 45.—My statement regarding lunacy resulting from the drug is based on my experience as Superintendent of the Lunatic Asylum in Rangoon, and not on any other facts.

---

41. *Evidence of* Surgeon-Major P. W. Dalzell, *Civil Surgeon and Superintendent, Central Prison, Bassein.*

1. In the course of practice both as Civil Surgeon and Medical Officer of a jail, extending over thirteen years.

2. The only form in which I have met with ganja in this country is that known as flat ganja. I have no personal knowledge of other varieties or preparations.

19. Ganja which is the only form with which I am acquainted is, I believe, used only for smoking.

23. I can give no information on this point.

28. I have had no means of ascertaining this.

29. I understand that tobacco and betel-leaf are mixed with ganja for smoking purposes. I have no knowledge of the preparation (bhang massala).

30. The consumption of ganja is, I believe, chiefly practised in solitude and principally by males, but female prostitutes are addicted to the habit.

31. I have so little experience that I am unable to give any reliable information on these points from personal observation.

32. I know of none.

36. I have no data on which to form an opinion on this point. In this country, ganja is only used by a few natives of India. The possession of the drug is entirely prohibited, but that it is used is proved by the fact that individuals are occasionally detected with considerable quantities.

37. I have had no opportunity of comparing the effects of these different preparations.

40. Not that I am aware of. I cannot say.

41. I have not had sufficient experience with reference to the action of the drug to give any reliable information on these points.

42. The above reply applies to this question also.

44. I have never had a habitual consumer of ganja under observation; and cannot therefore reply to these queries.

45. (*a*) Yes.

(*b*) Yes. In the few cases I have met with, the subjects have been thin and anæmic. When the habit is carried to excess, it appears to injure digestion.

(*d*) I am not aware that it causes either dysentery, bronchitis or asthma.

(*e*) It certainly impairs the moral sense and induces habits of laziness.

(*f*) It perverts the intellect and produces insanity. I have not had cases of toxic insanity from this cause under treatment, and therefore am unable to give an opinion as to whether the abuse of the drug was the exciting or predisposing cause. The form of insanity is chiefly maniacal.

46, 47 and 48. My want of personal experience debars me from discussing these questions.

49. The drug has a reputation as an aphrodisiac and is used by natives of India, who are prostitutes, probably to stimulate the sexual appetite.

50. My knowledge of the effects of the drug is too slender to enable me to do so.

56. My knowledge of the effects of the drug is too slender to enable me to do so.

57. In the few cases I have met with, the drug is chiefly employed for smoking.

In conclusion, the drug is entirely prohibited in this province. I cannot recall an instance in my own experience in which a Burman was addicted to the use of hemp in any form. Want of experience therefore precludes me from giving any useful information regarding its uses and effects from personal experience.

---

42. *Evidence of* Surgeon-Major G. T. Thomas, *Civil Surgeon, Moulmein.*

1. My experience of these drugs is very limited; they are not used at all in South India, where I never saw any cases for eleven years; and in Burma, except from two or three Indian prisoners, I can gather no information from persons who have used these drugs. These drugs are obtained privately by natives of India, but now it is practically not known to the Burmese, who use opium, if possible.

Charas in Burmese Sĕjao ăse.

Ganja = Sĕjao.

Bhang = Bhén.

These two latter names seem to be used for ganja or bhang.

19. Ganja is sometimes eaten with sugar and milk, when bhang is not procurable; ganja and charas are usually smoked by the lower castes, four or five times a day, 20 grains each time. Sometimes mixed with *stramonium* seeds.

23. No; it is only eaten. In Central India and North-Western Provinces, rarely in Madras, and not now in Burma; some have taken to opium, as ganja is obtained with difficulty. Bhang is eaten by Brahmins and better castes, one drachm daily to four drachms.

29. Ordinarily, with sugar, milk, etc.; betel leaves, also, for taste. Exceptionally, nux-vomica, which creates greater intoxication. Dhatura rarely, as it dries up mouth and tongue. Spices, sugar and milk.

30. Smoking in company; eaten in private; chiefly confined to males. Prostitutes are the only females who indulge in it. Children in Upper India are given these drugs to induce sleep.

31. Easily formed. Difficult to break off voluntarily. There is a tendency for the moderate habit to develop into the excessive.

32. Fakirs and hermits use these drugs largely, but there are no religious customs or rules which encourage the consumption of these drugs, but the reverse.

36. Not to my knowledge.

37. No difference in effects.

39. All equally injurious in excess, and also in excess tend to produce insanity.

40. Not to my knowledge. No.

41. (*a*) Improves appetite in small quantities.

(*b*) Yes, beneficial.

(*c*) Not useful as a febrifuge.

(*d*) Unknown, except to temporarily alleviate pain (rheumatic, etc.).

42. Harmless in moderate doses, otherwise it would hardly be used so extensively by various races and castes in Upper India.

44. It is refreshing and causes pleasant sensations. Intoxication, yes. They both allay hunger and in small doses they create appetite. After-effects, headache, if much is used.

45. (*a*), (*b*) and (*c*) Not in moderate doses.

(*d*) No.

(*e*) Not in moderate doses.

(*f*) Personally I have not known the use of these drugs produce insanity permanently, but I have not had charge of a lunatic asylum. I have only met a few cases of temporary excitement from the use of bhang.

46. By excessive use these drugs undoubtedly may cause insanity. In moderate doses it enables natives of India to undergo a great amount of physical labour which otherwise they could not.

47. Not that I know of.

48. Not to my knowledge.

49. Some Northern Indian races take these drugs as aphrodisiacs: and prostitutes use them. Large and continuous doses would produce impotence.

50. In excessive and long-continued doses these drugs would act in the reverse way to paragraph 49.

57. No differences known as to effects by eating or drinking these drugs.

---

43. *Evidence of* Surgeon-Captain R. E. S. Davis, *Superintendent, Central Prison, Rangoon.*

1. Only from observation of prisoners and criminal lunatics who have been addicted to the habit.

19. The ganja smokers I have come across make little or no distinction between ganja and charas, but my experience is very limited.

31. As far as my information goes, the habit is easily formed and difficult to break off. There appears not to be any great tendency to develop the habit to excess.

I am not in a position to give any definite opinion.

44. It would appear to be refreshing and soothing. It certainly does, in some instances, produce some intoxication.

45. I have met two well-marked cases of insanity, which were apparently caused by abuse of this habit. In neither case was I able to obtain reliable information, on which I could base an opinion as to the mental state before the habit began. I have no doubt whatever that persons of a neurotic diathesis might find this habit the starting point of mental disease.

Oral evidence.

Question 1.—I am of eleven years' service, and since 1885 I have been in Burma. I passed the first two years in military employment with civil duties in addition. Since then I have been in civil employ. I have been in charge of the Rangoon Central Jail since 1889, and as the accommodation in the lunatic asylum is insufficient, I have had an average of 60 criminal lunatics confined in the jail.

Question 45.—The consumption of the hemp drugs has not come before me as affecting the health of the people. I have never discovered ganja in the jail. I remember a small piece of some substance which I was told was ganja, being once found on the person of a prisoner on admission to the jail.

The only two cases in which I have seen any reason to connect the hemp drugs with insanity were criminal lunatics admitted to the jail, and they were Sikhs. The cause was put down as ganja smoking. I endeavoured to get evidence on the subject and applied to their commanding officers, but failed to get reliable information that there had been abuse of the drug. Questions put to the men who accompanied the prisoners also failed to elicit any information beyond the fact that they were ganja smokers. I was unable to conclude with confidence that the insanity was due to ganja in these cases, because there was no evidence of excess, and I could not learn the previous history of the men. These are the two cases mentioned in my answer to question 45.

---

44. *Evidence of* Surgeon-Captain R. H. Castor, *Civil Surgeon, Yemethin.*

1. Practically *nil*, as during my military service I had no cases to deal with, and since I have entered the Civil Department in Burma I have been in the upper portion of the province, where cases of this nature are comparatively rare. Of course there are the well-known cases one hears of, of sepoys running amuck from excessive use of these drugs; but personally I have not met with one.

2. I do not know enough of this subject to give an opinion.

19. They are chiefly used for smoking; but the Hospital Assistant states that he has seen lozenges made of ganja in Dacca and sold in the bazaar. I have known very few persons who drink it at festivals, and in their private houses both in Madras and Burma.

23. Very often used for smoking in parts of the Madras Presidency, Eastern Bengal, and North-West. The middle class people generally, as a rule, to a moderate extent, but sometimes to excess at festivals.

28. I do not know.

29. Milk, sugar and spices are sometimes mixed with the drugs to make it more palatable. Opium is mixed to make it a narcotic. Betel stalk is mixed with it to make it more intoxicating. I do not know bhang masala.

30 and 31. I do not know.

32. I do not know any particulars on this subject; but I know it is used at the Muharram, Holi, and other festivals.

39. I do not know.

40. Native doctors use it for diarrhœa and cholera; also for poisonous bites, and a narcotic. For cattle-disease, I do not know.

41. (*a*) As a digestive.

(*b*) Has a certain amount of staying-power.

(*c*) Yes.

(*d*) Narcotic, anodyne, and antispasmodic; but the action of the drug under these heads is limited and uncertain.

42. I certainly think that to a moderate extent these drugs are beneficial, owing to their actions above named.

44. I do not know.

45. (*b*) Not, so far as I know.

(*c*) Causes loss of appetite.

(*d*) No.

(*e*) Sometimes to a certain extent only.

(*f*) Do not know of a single case of insanity this drug has produced.

46, 47 and 48. Do not know.

49. I have heard of its being used for such purposes, but do not know of any special cases. The rest of the questions I am unable to give an opinion.

50. Do not know.

57. My experience is limited on this question, and the only cases that I can recall now are those which I saw occurring at festivals, where some of the men both eat and drink ganja to an excess which subsequently acts on their constitutions and produces evil results.

---

45. *Evidence of* ASSISTANT SURGEON O. L. MOONSHI, *Civil Surgeon and Superintendent of Jail, Maubin, Thongwa District.*

1. As the ganja is not much consumed by the people of Lower Burma, my experience on the subject is limited. The information furnished in the accompanying answers is chiefly based on experience of the usage of the drug amongst the people of Lower Bengal.

The definitions given by Dr. Prain of the three narcotic articles obtained from hemp plant in India cannot be accepted for this province, inasmuch as, except the ganja, charas and siddhi are seldom used by Burmese. Ganja is locally known as "saykyouk" or dry tobacco.

19. Ganja is used only for smoking.

23. Unable to give any information on this subject.

28. Unable to give any information on this subject, as I have seldom come across habitual or excessive consumers of ganja amongst the Burmese.

29. In India siddhi or bhang is ordinarily mixed with coriander and cardamom to give it flavour, and exceptionally with sugar to add to its intoxicating effects. Dhatura is ordinarily mixed with ganja by thugs or highway robbers, and administered to their victims with a view of inducing temporary unconsciousness so as to facilitate their object of plunder.

No; I do not know of bhang mussala.

30. The consumption of these drugs mostly practised in company, and chiefly confined to male adults. The female sex occasionally partake of bhang; children seldom consuming any of these drugs.

31. Yes; the habit is easily formed and difficult to break off, as in the case of any other narcotic drug, *e.g.*, opium, alcohol, etc. There is always a tendency in ganja also to lead from moderation to excess in its use.

32. I am not aware of any amongst the Burmese, but amongst Hindus siddhi is used on the fourth day of the greatest Hindu festival called Bijaya, and the custom is regarded as essential. It is always temperate, and not likely to lead to the formation of the habit or otherwise injurious.

36. I do not think that alcohol is now to any extent being substituted for any of the drugs, nor do I think it ever will, for alcohol is dear, ganja cheap. Half an anna worth ganja will produce intoxication in a beginner, whereas half an anna worth alcohol will fail to produce that effect.

37. The only difference in the effects of the use of these drugs is one of degree: ganja producing the strongest effects, and siddhi the least.

39. Instead of smoking ganja or charas being less injurious than drinking or eating the same, I am inclined to think that it is more so, for obvious physiological reasons which it is unnecessary to discuss here.

40. Except bhang, which is prescribed by native doctors as a vehicle in cases of diarrhœa. I am not aware of any other preparation of the drug being used medicinally by them. Ganja is sometimes used externally for scabies, boiled in oil.

41. Yes; moderate use especially of bhang acts as an appetiser, alleviates fatigue, and probably to some extent retards the wear and tear of tissues, consequent on severe bodily exertion or exposure. I am not aware of its anti-malarial effects, but I would quote an instance from my memory, where three persons were bitten by a mad dog and of these three one was an inveterate ganja smoker. This man escaped hydrophobia, whereas the two others succumbed to it. By this I don't imply that it is the specific for the cure of the malady. I have had no opportunity of giving it a trial.

42. I do consider that the moderate use of bhang to those accustomed to it for any length of time is not only harmless but beneficial. Sudden cutting off of the supply to those will be necessarily followed by symptoms of dyspepsia and lethargy in works.

44. The immediate effect is a sense of relaxation of the whole system, followed by intoxication. Like tobacco, it is refreshing after undue exertion. It both allays hunger and creates appetite. The effects generally last from one to two hours, and it is succeeded by a craving for more. When the first effects pass off, like alcohol, it has its after-effects too, but less in degree; and want of subsequent gratification is attended with longing for more and general lassitude, aches and pains.

45. (*a*) I have known habitual moderate consumers of these drugs to enjoy robust health, possess sound intellectual powers and of unimpeachable morals.

(*b*) and (*c*) No.

(*d*) No; on the contrary, asthmatic people often resort to it, to allay their sufferings. Immoderate use causes gastro-intestinal irritation.

(*e*) No.

(*f*) No; on the contrary, I have known of moderate consumers of hemp possessing brilliant intellectual powers. Some of the rishis and jogis could be cited in support of the above assertion. I have known sanyasis (those who have cut themselves off from all socialities and turned devotees for life) well versed in Sanskrit and proficient in the knowledge of the four Vedhas, at the same time addicted to the use of this drug. All the cases of insanity that have come under my observation in Burma, in none have I been able to trace its cause to abuse of hemp. I have seen some cases of insanity amongst the natives of India brought on by abuse of this drug, and I must confess that in one and all no predisposing influence to the disease could be traced. The malady was solely due to the baneful effect of its immoderate use. It generally produces symptoms of violent mania. I have known cases to recover after the drug has been stopped and proper treatment applied. In some

instances the mental powers have sustained an irreparable damage.

I am not aware of any cases of temporary insanity reinduced by the use of the drug after liberation from restraint. The latter part of the question I am unable to answer satisfactorily, as I have known none who had had to indulge in the abuse of the drug to obtain relief from mental anxiety or brain disease.

46. Habitual excessive use of any of these drugs will undoubtedly deteriorate the health, produce serious gastro-intestinal disorder, lead to immorality and finally drag its victim to the gates of an asylum.

47. Assuredly not.

48. Same remarks as the above apply here.

49. Yes; it is used as an aphrodisiac. The prostitutes use it also for the purpose, but to a less extent than the alcohol. I do not consider that its moderate use as an aphrodisiac is attended with more injurious consequences than its use as a narcotic, because the same quantity would answer both the purposes. I have known no instances of importance resulting from the use of hemp.

50. Its excessive use as an aphrodisiac will certainly produce all those ill-effects of its abuse as a narcotic.

56. When adulterated with dhatura and other narcotics, it will produce deleterious effects on the system whether used in moderation or excess. As already stated, except the administration of dhatura with ganja by thugs to increase its narcotic effects, I know of no other substances that are added to it to modify its effects. Both ganja and charas are usually used with tobacco as a vehicle for smoking.

57. I know of no instances where it is either eaten or drunk.

Oral evidence.

1. I belong to the Indian Medical Department, and have been twenty-one years in the service. I took the degree of L. M. S. at the Calcutta University in 1872. The first five years of my service were passed in Bengal and the last sixteen in Burma. I have never held charge of a lunatic asylum, and have had no special experience in lunacy.

45. My answer refers to the period during which I was Assistant Surgeon in Bengal. One case was a relation of my own, who began smoking at an early age and finished in the lunatic asylum. He began to smoke at the age of 16, used to take 15 *chillums* a day, and went mad after ten years' indulgence in this habit. He lived close to me, and I knew him almost from childhood. I was about 15 years of age when he began to smoke, and I was a Civil Surgeon in Bengal when he went mad. He and I lived as neighbours for six years after he began smoking, but the last four years of his history before he went mad was only known to me by hearsay. As we were closely related, I continued to know all about his habits. I am confident there was no other cause of insanity but the ganja. The first six years of his smoking produced no symptom of insanity, but he neglected his studies and took to bad company. The low company he frequented was not criminal, but was vicious. He may also have followed vicious and licentious courses, but I did not attribute his madness to his licentious courses, because many of the company followed the same courses and did not go mad. I have read of sexual indulgence as being one of the principal causes of insanity, and our Shastras contain the same teaching. I do not think the moderate use of ganja will cause insanity, because I have known innumerable moderate smokers who have not become insane. The insanity generally takes the form of mania. Mania can be produced by spirit drinking, sexual excess, grief, fear, and many other causes. In the present case there were six years of ganja smoking followed by four years of sexual excess in addition to the ganja habit. The ganja smoking was the exciting cause of insanity. I was not present when the man went mad, but I ascribe the insanity mainly to ganja smoking, because I saw no other predisposing cause. I could not differentiate between insanity due to ganja and that due to sexual excess, but in this case attributed it to the former cause because others had indulged in sexual excess without going mad. The others also went in for ganja smoking, but not to the same extent as this boy. I knew them all as they belonged to my village, and am therefore able to make this statement. I could not say whether they indulged in sexual excess to the same extent as this boy. The case went to the lunatic asylum, but I don't remember which asylum. The man is dead long ago.

In the Gaya district I saw one or two cases. They were not, however, very bad cases, being partial aberration of mind. They occurred seventeen years ago. The cases came under my treatment as outdoor patients, and on my enquiring the cause of their insanity I was told that it was excessive use of ganja. They were not under my observation for any length of time. I am not certain that these cases were due to ganja, as I am in the other case previously described.

---

46. *Evidence of* MAHENDRA NATH ROY, *Resident Medical Officer, General Hospital, Rangoon.*

1. My information is from—

(*a*) Occasionally drinkers of bhang in my part of Bengal as mentioned in the following pages.

(*b*) Three charas smokers amongst my co-lodgers in Calcutta.

(*c*) About 15 ganja smokers in my native village in Nadia district.

2. Dr. Prain's information is, I believe, correct as far as I have heard.

I have seen only one variety of ganja which, although I did not see enquiringly, I believe, is round. Chur ganja I have not seen. Male or female classification I have not heard of.

The different products are known as siddhi or bhang, charas and ganja.

19. I have seen them used only for smoking. Ganja in cattle disease is given as bolus.

23. No.

28. As regards ganja and bhang I am unable to answer.

As regards charas—

(*a*) Average allowance about 5 grains, cost $1\frac{1}{2}$ pie.

(*b*) I have not seen any excessive consumer.

29. Ganja is always mixed with a few drops of water so as to make it slightly moist, and then

prepared by kneading on the palm of the hand. This, I believe, makes it less pungent.

Charas is put into a capsule of prepared tobacco (used in Bengal for smoking), and then put on fire, which melts the charas and thereby gets it mixed with the tobacco. This has also the same effect.

Bhang is used with black pepper, aniseed, rose petals, cucumber seeds, milk and sugar. These are supposed to have a cooling effect, but the term is used rather vaguely. Dhatura, opium, nux-vomica, cantharides or betel-nut is not used.

Bhang massala is sold in Calcutta for the purpose of its being mixed with bhang, and is composed of black pepper, aniseed and rose petals.

30. Ganja and charas smoking is considered degrading in the Bengal society, and consequently they are not smoked in public; but when smokers meet they smoke together, and generally there is a place where they meet and smoke.

Bhang is consumed in public, as sanctioned in the social custom mentioned under paragraph 32; but it must be mentioned that a son using anything intoxicating (even smoking common tobacco) before his father or men of that position is not sanctioned by good manners. I have not seen ganja or charas used by females or males in their minority, nor have I seen bhang being used by minor males. Females seldom use bhang during the above-mentioned social custom.

31. I am unable to answer.

32. There is a social custom in Bengal under which bhang is used on the fourth day of Durga Puja (the biggest of all Hindu religious ceremonies held in Bengal about September or October). Hindus returning home after throwing the idol into water, visit and embrace each other. During these visits bhang, prepared into a syrup with the ingredients mentioned under paragraph 29, is offered as well as sweets. It is not essentially necessary to drink the bhang thus offered. It is generally temperate, but as it is used once only in a year, and as there is no definite rule about the strength, people sometimes find the amount of intoxication produced undesirable. I have never seen any injurious effect produced by this custom, neither have I seen any one being habitual consumer of the drug.

36. None that I am aware of. Use of alcohol is very rare in my part of Bengal, but then alcohol shops are few and far between.

37 and 39. I am unable to answer.

40. Bhang is used as medicine by kabirajes, and as a family medicine in diseases of the digestive organs. Ganja is used in cattle disease.

41. From my limited experience I am of opinion that all the three in moderate doses are—

(*a*) beneficial as a food accessory.

(*b*) They give staying-power under severe exertions or exposure and also alleviate fatigue. My reasons for (*a*) and (*b*) are what I have seen.

People after drinking bhang eat a good lot, but those people ordinarily do not eat so much. In one case I recollect there seemed no end of the feed and the man had to finish because there was nothing more to give him. The few charas smokers I have seen were good eaters.

Dooly-bearers in my part of Bengal are all ganja smokers. When their services are wanted they have to be fed, and the measure of their ration is not an ordinary one. Amongst all labourers their labour is the hardest. They will never grudge a distance nor take shelter from rain or sun if they get their ganja, extra for extra.

(*c*) I do not recollect ever treating a ganja or charas smoker.

(*d*) I have no experience in any other way.

44. Never had an occasion to enquire, but from what can be seen outwardly, these drugs seem to be refreshing; do not produce intoxication that may be apparent in the consumers' actions and conversations; allay hunger and create appetite. I am unable to say how long the effect lasts, and what are the after-effects. But the want of subsequent gratification produces longing.

45. (*a*) Habitual moderate use has apparently no noxious effect.

(*b*), (*c*), (*d*), (*e*) Not that I know of.

(*f*) Does not deaden the intellect. I have not seen insanity amongst those cases that I knew.

46. The two excessive smokers I have seen were known for short temper and outspoken habits, otherwise there was nothing wrong physically, mentally or morally.

47 and 48. I have not seen any case which leads me to that conclusion.

49 and 50. I am unable to answer, but so far I know ganja and charas smokers have children.

57. I have not seen ganja or charas being eaten, but I have heard that when a ganja smoker falls short of his quantity, he chews and eats it, as it is believed that to produce the same effect it requires a smaller quantity when eaten than when smoked.

---

47. *Evidence of* Assistant Surgeon Maung Thin.

Oral evidence.

In the case of Abdul Kadar, admitted this year (1894), three friends came with the lunatic. They were not related to him at all, but merely friends. I found out nothing about his hereditary history. They said they knew Abdul Kadar, and lived with him. They said he had been eating ganja with milk for about a year. They noticed he did not go to his work as usual, and used to quarrel with people. I asked about his previous habits. They said he was sober and regular in his habits, and never quarrelled with anybody. I asked how much ganja he took. They could not tell me. They said he had been quarrelsome for two or three days before admission to the asylum. He had also been regular at his work until within two or three days before. When I asked how much ganja he took, they said they could not tell, but it was very much. I did not ask how often he took it a day, nor how much he spent on it, nor whether he was ever intoxicated with it. They said they themselves did not take ganja. They were from Madras. I asked nothing further.

I have been Assistant Surgeon in subordinate charge of the Rangoon Asylum, only for ten months. I know of only one case of alteration here of the entry made by the Civil Surgeon in the "history." The cause had been shown as "unknown"; but Dr. Dantra entered it as "opium eating." I understand that this was because the patient came from a district where opium was

much eaten, and this might be a probable cause. Dr. Baker altered the entry again to "unknown" after consulting Dr. Dantra, and obtaining his consent.

48. *Evidence of* SONA MULL, *Brahmin, First Grade Hospital Assistant, in medical charge of Dispensary and Jail, Myanaung.*

1. My answers are framed according to my own experience.

19. Ganja and charas are used only for smoking; but sometimes, if a habitual bhang drinker cannot get bhang, he will use ganja for drinking; and in places where ganja is expensive or not easily procurable, such as in Burma, people often drink ganja instead of smoking, as a small quantity will be sufficient to intoxicate, while more is required for smoking.

23. I have never noticed that bhang is used for smoking.

28.

	Bhang.		Ganja.		Charas.	
	Allowance per diem.	Cost per diem.	Allowance per diem.	Cost per diem.	Allowance per diem.	Cost per diem.
Moderate. .	1 to 2 tolas	3 pies	½ tola	1 anna	½ to 1a	1 anna.
Excess . .	5 to 10 tolas	9 pies	2 tolas	4 annas	1 tola	4 annas.

29. I have never noticed if any ingredients, such as dhatura, nux-vomica, opium, cantharides or betel-nut are mixed with ganja and charas.

The following ingredients, called bhang massala, are mixed with bhang before it is prepared for drinking, *viz.*, aniseed, black pepper, cucumber seeds, water-melon seeds, poppy-head seeds, and almonds.

30. The drugs are generally confined to the male sex, with the exception of some bad women. I have never known children to consume these drugs.

31. It is easily formed and can be easily broken off. Yes, the moderate habit of using these drugs will gradually run into excess.

32. There is no social or religious custom that I am aware for the consumption of these drugs. It is likely to lead to the formation of a habit, and it is injurious if taken in excess.

36. I don't think that alcohol is substituted for these drugs, because, first, alcohol is more expensive; second, most of the people who are in the habit of using these drugs are Hindus and Muhammadans, who, on account of caste prejudice, don't like to take alcohol.

37. The effect of charas smoking is the same as ganja. The effect of bhang drinking is milder than that of smoking charas and ganja, and has a more astringent effect.

39. In my opinion the smoking of any preparation of the hemp plant is not less injurious than eating and drinking of the same, because in both ways it will affect the nervous system.

40. I have seen in my country, Punjab, native doctors sometimes prescribe bhang drinking for menorrhægia, dysentery, insomnia, some forms of dyspepsia; and barbers generally give bhang to drink to Muhammadan boys before the operation of circumcision. I have never seen any one prescribing ganja or charas for any illness. Bhang is sometimes used by the natives of India on cattle for stomach diseases.

41. The moderate use of charas, ganja and bhang is effectual as digestives, in alleviating fatigue, and as a nervine stimulant, but temporarily.

42. The moderate use of any of these drugs is harmless, as people using these drugs in small quantity once or or twice daily don't suffer any ill effects.

44. The immediate effect of the moderate use of these drugs is refreshing and produces intoxication. It creates appetite. The effect lasts about four hours. The want of subsequent gratification produces longing and uneasiness.

45. I have never seen a man suffer bad effects by moderate use of these drugs. The moderate use does not cause dysentery and bronchitis, but produces laziness. About five years ago a police constable, a native of India, was under my treatment suffering from mania said to have been caused by excessive use of ganja smoking and bhang drinking. He was sent to the lunatic asylum. In 1877, while I was doing duty in the 8th Regiment, Madras Native Infantry, I recollect a Madrasi sepoy died suddenly as soon as he returned from ball fire. On enquiry it was reported that he had a smoke of ganja before he started at 6 A.M., and had another smoke on his return at 11 A.M. This man was a habitual ganja smoker; cannot say whether moderate or in excess. No *post mortem* was held.

47 and 48. The habitual moderate use of these drugs does not appear to be a hereditary habit, and does not affect the children of the moderate consumer.

49. The moderate use of these drugs is practised as an aphrodisiac, and its use for this purpose is really injurious. The sexual desire which is produced by the use of hemp drugs is false and temporary.

50. The excessive use of these drugs is sure to produce impotency.

57. I have seen people eat and drink ganja sometimes, when they do not get bhang, who are in the habit of drinking it.

In conclusion, I beg to say, although the moderate use of the above drugs is harmless, they produce laziness and stupidity, and there is always a tendency of the moderate smoker and drinker to develop into excess, which is injurious to the constitution, and makes the man useless for any labour. Therefore I think it will be good for the public if the sale of these drugs be stopped.

49. *Evidence of the* Right Rev. Dr. Strachan, *Bishop of Rangoon.*

Oral evidence.

I have been in the Madras Presidency for twenty-two years, and over eleven years in Burma. I was a Missionary in Tinnevelly, and afterwards Secretary to the S. P. G. Mission in Madras. I have since been Bishop of Rangoon. I lived among the people in the Madras Presidency, at one time being seven miles from any European. My experience was in Tinnevelly, Ramnad, and Madras itself. I am also M. D. of Edinburgh University and did medical work as a Misisonary. For years I was five hours a day in my hospital. I suppose I must have prescribed from 300 to 500 thousand times for natives.

My experience with regard to the hemp drug preparations is absolutely *nil*. First of all, amongst the people of the extreme south of India, who consist to a great extent of the Shanar caste, the drug was not used at all. I never remember to have met any case where I had reason to believe that the drug had been used during my experience in Tinnevelly. In Madras itself there were a few cases where the patient came and I was led to ask questions as to the use of the hemp drug. I have never had a case where a patient came to be treated for the results of the drug; but I have had in Madras six or eight cases at the most, where I was led by the symptoms to ask questions as to the use. The use was admitted in one or two cases. But still I could not certainly trace the symptoms as the effect of the drugs. I have left all my records in the various hospitals, and besides, the cases are too few to establish any conclusion. In one or two cases the connection of the symptoms with hemp drugs was so far established that, though the patient complained of something else, I treated the drugs as the *origo*. There seemed to me nervous symptoms, so to say, artificially produced. There was no insanity. But I saw signs, as I thought, of softening of the brain in one case. The excitability displayed led me to infer that the disease of the brain was caused by the man's habits; and this led me to make enquiries, the result of which caused me to associate the symptoms with constant use of the drug. It was a mere impression. There are many other causes which might produce these symptoms; but by questioning one eliminates certain causes and is able to say: "In this such seems to be the cause." This case occurred about 1875 or 1876. So far as I remember, I eliminated other causes. I do not remember the treatment I followed; but I recollect the diagnosis. I think there were one or two more cases in Madras in which my impression was that brain disease was traceable to hemp drugs. In those cases I found no history of liquor. Though liquor is more common than ganja in Madras, I found no liquor history in these cases. I have never read of brain changes from ganja; but I presume they might result from it as they do from liquor. At all events, I diagnosed them as far as I could judge.

At the same time my experience of hemp has been too limited to give any opinion on the effects of hemp drugs. Then it must be borne in mind that, though my hospital experience of hemp was small, there may have been more in military or police hospitals, and so on. My observation in respect to Southern India, so far as it goes, is that the drug is hardly used at all, *i.e.*, in the Madras Presidency. The drug has never in any way forced itself on my notice in my itinerating work. It has never come before me as one of the evils with which a missionary has to deal. And in my missionary vists to villages, when listening to quarrels and so on, I have never found any of this set down to hemp drugs.

In Burma the hemp drug has never come into my experience. It has attracted my attention only from the reports I have read in regard to smuggling of ganja. I received copies of the questions of the Commission to distribute. I distributed ten copies, but only received one answer. I have since enquired, and am told that Burmans never use the drug. I have never myself met a Burman who did. I should say from what I hear that there must be difficulty in getting the drug by natives of India, but that there is much brought in. My impression is that there has been increase of smuggling; but that may be due to hearing of more seizures. My impression is that scarcely a steamer of the B. I. S. N. Company comes in without some ganja. The company do not approve; but the stuff gets on board their boats. But I have never seen the drug used at all since I came to Burma.

From my limited experience in Madras, I feel difficulty in saying anything definitely; but, generally speaking, I may say that it is always difficult to interfere with the intoxicant of a nation, and that it is unwise to do this without very grave necessity. I think further that there seems to be a physiological necessity for some kind of artificial stimulant in the human race. And it is a very serious matter to attempt to interfere by force with the habits of a race or people in regard to their stimulants. It has to be done with the greatest caution.

---

50. *Evidence of* Saw Maung, *ex-Sawbwa of Nyaungywe State.*

Oral evidence.

Fort Stedman is in the Nyaungywe State. The State is about 60 English miles in length from north to south by 28 in breadth from east to west. The Danu country borders on the State, and some Danu villages are within it. The name of the capital of the State is Nyaungywe, and it is near Fort Stedman.

The hemp plant, *bhen bin*, is used but little for the drug, and principally for its fibre in the State. The Shan people only grow a few plants here and there, but the Palaungs, Kachins and Lawas cultivate it in fields to a very small extent. The occasional plants grown by the Shans are used for the drug. The more extensive cultivation by the other classes is for the fibre. Each patch of this cultivation would be less than the area of this hall (60 by 35 feet), and nearly every house would have a plot. The drug is not made from this cultivation, and the plant thus grown for fibre is called "gom bin." The fibre is used in the house of the grower and it is not sold. The "bhen bin" and "gom bin" are precisely the same plant. I do not know if the male plant is removed when the plant is grown as a narcotic by the Shans; but the stem of

the plant is split and a piece of wood is inserted, and a *chatty* or other vessel is suspended over the flower head to prevent the plant growing and make the head grow thick. All the plants grown for the drug are treated in this way. The *chatty* remains suspended over the plant for about a month. The stem is split when it has grown about as thick as the finger, and the plant is cut down a month after. I have never seen the seeds of the plant; but I have seen the plant growing. The plant grows to a height of about 7 or 8 feet, and is propagated by seed. I have never heard of the seeds being consumed. When the head and its leaves become dried, the "séjouk" is fit for use. There is no process of preparing the flower head for storage; it is stored as it is gathered. No part of the plant below the incision is turned to use, not even for fibre, because the stem is crooked and the fibre is spoilt by the splitting of the stem. I don't think the head contains any seeds. About six or seven inches or heads are taken from each plant. The branches of the plant are pressed together and thrust into the neck of the *chatty*, which latter is about a foot in diameter. The *chatty* is made of mud and is light, but baskets are generally used. The *chatty* or basket is supported by the plant itself. The bunch on the leading shoot is regarded as the best in quality. This cultivation would not be found in every Shan village.

Among the Shans about two men out of a hundred smoke the drug; women never smoke it. The drug is used in three different ways. The drug is cut into shreds, mixed with tobacco and smoked in the cigar. It is not washed or prepared before mixing with tobacco. I can't say in what proportion it is mixed with tobacco. The cigars in which it is smoked are very small, about the size of a cigarette. The smoke is inhaled into the lungs. Tobacco is not inhaled in the same way. The drug is sometimes smoked unmixed, rolled up into a cigar. I have seen it so smoked, and the cigarette is half the size of that in which the drug mixed with tobacco is smoked. The "tanape" leaf is the covering of the cigar, the same as that used for the tobacco cigar. The drug is sometimes mixed in curries. It is also used medicinally, mixed with other drugs, in treatment of debility and dyspepsia. It is not used in the treatment of fever, but as a protection against malaria. I don't know if it is used for dysentery. I do not know of its being used for cattle; but I have heard that it is given to elephants when they become lean and weak.

The drug in small quantity is exhilarating, but in large doses the user becomes timid. I have heard that, taken in excess, it causes madness. I have seen a man become temporarily mad from an excessive dose. The man is frightened at everything he sees, and therefore I call it madness. Such a man will scream at a post, thinking it is about to fall upon him. He will remain in this state for five or six days without a fresh dose. I have never known any one become permanently mad from the drug. I have never heard of any other drug being mixed with "sèjouk" to increase its strength. The people of the Danu villages within the State grow and use the drug in the same way as the Shans do. They do not grow the plant for fibre. I never heard of the drug being taken in the form of drink.

Since the Shans are Buddhists, all intoxicating drugs were prohibited in the Nyaungywe State. The hemp drug was only allowed to be grown for medicinal purposes. For the first offence an offender would be lightly punished, on a second conviction he would be imprisoned. The State did not take any special steps for enforcing the prohibition. I used occasionally to punish offenders myself, but the punishment was always very light. I think it would be possible to put down the cultivation by severe measures. There would be no strong feeling against such measures, because, unlike opium, the habit of using hemp can be easily broken. People would smoke tobacco if deprived of hemp. "Sèjouk" is never sold out of the State. People grow it only for their own use, and sometimes it is given to friends.

---

51. *Evidence of* KUNGYI, *uncle of Sawbwa of Hsipan (Thibaw).*

Oral evidence.

The State of Hsipan (Thibaw) is north-east of Mandalay. I am uncle of the chief and his principal adviser. The hemp plant is not cultivated in our State for narcotic purposes, so far as I know. It may be, but I do not know. The Kachins grow the plant for fibre, but there are no Kachins in our State. I have never seen the drug used in the State, but I believe that it is used both for smoking and also in curry. The use is not prohibited in the State, because there is no need to prohibit the use. The subject has never come up for any administrative action. It has never occurred to me to have it prohibited, for, though there may be use of the drug, I do not think there is in our State.

---

52. *Evidence of* KINWUN MINGYI, C. S. I., *Prime Minister to the late Government of Burma.*

Oral evidence.

Under the Burmese Government the hemp drug was under prohibition because it was one of the things prohibited by the Buddhist religion. The prohibition was enforced by light punishments. For the first offence the offender would be warned, and surety for good behaviour taken from him. For a repeated offence the offender would be imprisoned. Offences were brought to light by the officers of police. No special orders on the subject were issued to the police, but the people knew they were not allowed to indulge in intoxicating drugs. As Prime Minister, I had no personal connection with such cases, and I do not therefore know how the prosecutions originated. I have known people to be punished for breach of this prohibition, but the punishments were awarded by the Police Magistrate. No special law on the subject was passed during my tenure of office as Prime Minister. The cultivation of the plant was not prohibited, but the prohibition was against the use. I have seen the plant when I was young, but I should not be able to recognize it in the field now. I never heard of

Digitized by Arya Samaj Foundation Chennai and eGangotri
Shri Brihad Bhartiya Samaj
on 31 October, 2019

its being cultivated anywhere in Burma under Burmese rule. I never heard of the drug being used in the palace mixed with tobacco in cigarettes. It is possible it was used, but I do not think it could have been. I never heard of its being used by any servants of the king. There were some natives of India living in Mandalay under Burmese rule. I never heard of their using hemp, but if they broke the laws they were dealt with by the British Resident. The prohibition against hemp would not apply to them.

---

53. *Evidence of* MYOWUN U. PE SI, C.I.E., *late Town Magistrate of Mandalay.*

Oral evidence.

I was Town Magistrate of Mandalay during the Burman Rule for seventeen years. During the Burmese time, the person who drank liquor would be dealt with severely: the opium consumer less severely, and the ganja smoker would be least severely punishable. Drink was most severely punished, because the man who takes liquor is violent and quarrelsome. Ganja makes a man more jocose and not violent. Opium is more expensive than ganja and more difficult to give up as a habit, and was therefore thought a worse habit. I think also that the man who uses opium becomes a lazy man and unfit to do anything. The ganja consumer does not; and a man does not get into the habit of smoking ganja, as in the case of opium, so as to be unable to give it up. But all three were prohibited. The prohibition originates in religion, but the king sanctioned it. No special measures were taken to enforce the prohibition; but when people were found using the drug they were punished with a light punishment. The police might find them; but they had no special order to search out the use of this drug. But it was the practice to read the general prohibition of intoxicants every month at fasts along with the other moral laws sanctioned by the king. The police, however, had no special orders to search out such cases. Only if people became noisy or otherwise attracted notice the police would interfere. One or two cases of prosecution for use of intoxicants might occur in this town in a year.

The prohibition regarding the use of ganja would not extend to cultivation. Before becoming Town Magistrate I was a Commissioner on the southern border of Upper Burma. There was cultivation, but very little. There would not be more than a plant in a hundred houses. There was no part where I knew of cultivation being more extensive than any other. I heard that ganja was also imported from the Shan States, but I did not know that of personal knowledge.

I cannot speak to the extent of the use in the country generally. In Mandalay perhaps about fifteen or twenty in the whole city were convicted of having used it. I mean fifteen or twenty Burmans. Hindus and other natives of India use the drug much more than Burmans. It was always obtainable at shops where people sell medical drugs. There was no prohibition against sale of the drug at all. The prohibition is only against use. Notwithstanding this prohibition, the ganja was used in small doses in pipes through water and also in cigars and also sometimes without tobacco in cigarette form by all classes, even by persons employed in the palace itself. This pipe was never used for tobacco and not frequently for ganja. Ganja was more generally smoked in a cigar. Ganja was not widely used; not many people used it, but some did of all classes. In the palace it was only secretly used. The man smoking it would draw his smoke into his mouth and blow it into the hole in the floor made for spitting into, so that the smell might not get abroad. This was not ordinarily done with tobacco.

I have seen cases in which persons got mad for a few days from ganja; but I have not heard of cases in which a man got mad permanently from using ganja. As City Magistrate I dealt with insane persons. I never had any person permanently mad from ganja before me. I saw about ten cases in a year of temporary madness from the use of ganja during the seventeen years of my office. They were mostly of the lowest class of Burmans. The insanity did not last even an hour, generally about fifteen minutes. Some of these cases were brought before me as a Magistrate and some I saw privately. About three or four hundred persons intoxicated from liquor would be brought before me as a Magistrate in a year. About twice as many people were found intoxicated from opium than from ganja. When I said before that there were only "one or two cases of prosecution for use of intoxicants in a year," I meant cases in which there were complainants owing to assaults having been committed, and so on. My jurisdiction extended considerably beyond the city of Mandalay.

LIBRARY OF THE